INR-330

User's Manual

For Version 3.0.11

www.acti.com

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About This Manual

Target Audience

This manual is intended for **End Users** who actually execute security tasks such as monitoring activities, patrolling secured zones, searching video data and managing alarms with use of NVR surveillance system. The reader is expected to own not only the basic operation skills but permissions to access major functionalities, as the access rights are based upon different user roles defined by the **System Administrators**.

You may also check http://www.acti.com/downloadcenter for updates or release information about this software and document.

Content Overview

This manual provides information needed for monitoring the whole system and playback recordings. Its content consists of the following sections:

- **NVR User Interface Overview** gives you a glance of the user interface components and module functions.
- **Live View** introduces the methods to add your desired channels and arrange your customized live view layout on live view screen.
- **Monitoring** provides guidance on how to read the system alerts and status, do live view PTZ operations, take a snapshot and execute manual recording.
- **Playback** gives instructions on how to perform synchronized playback and export files from NVR server system.

Related Documentation

Since this manual focuses on operation instructions for live view operations, playback, search video and export files from NVR server, there is very limited information about system installation and configurations for **System Administrator**. **System Administrators** and **End Users** who would like to obtain the instructions on NVR system setup, please acquire the latest Administrator's Manual from http://www.acti.com/downloadcenter

Technical Support

For technical support or feedback, please contact our engineers via our **Customer Help Desk** platform at http://www.acti.com/CHD.

Conventions Used in This Manual

The following are typographic conventions used in this manual:

- **Bold** indicates keywords, major functions of NVR, or a title of a section/column.
- *Italic* is used for a filename or location path.
- Underlined is used for a document name or hyperlink.
- "**Bold**" indicates the name of a button, a menu or a choice item.

Some notices are placed within the following boxes; each type of the box indicates different purposes or levels of importance for system:

Important Notice

The content within this box is an **important notice**. This notice is important for you to get certain function to work properly, or to prevent from certain potential problems that may damage your system. Make sure you read this notice and follow the instructions.

Note

The content within this box is a **note**. A note is some necessary information you need to know about the action you are currently taking, like what will happen after you follow or don't follow certain procedure.

Tip

The content within this box is a **tip**. A tip gives you an alternative method to easily or quickly achieve an objective, usually for specific conditions.

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- The information contained herein is subject to change without notice.

- The English version of this document is the official one for all purpose. All the translated versions are provided as a convenience. Any discrepancies or differences created in the translations of any other languages are not legally binding.

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Product Overview

INR is a compact and reliable multi-channel standalone NVR. It contains a pre-installed Windows operating system, and ACTi NVR 3 video management software along with client software.

This unit is composed of:

●Computer

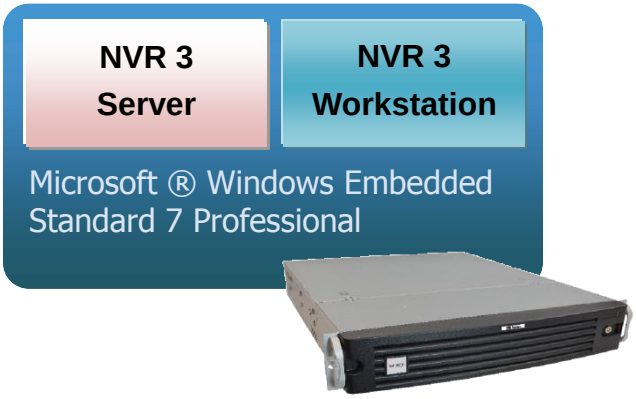
A PC, with Microsoft ® Windows Embedded Standard 7 Professional operating system pre-installed.

●NVR 3 Server System

A video management software that allows this PC to become a server, where the system administrator performs the administrative tasks and NVR server services (event handling, schedule recording, media streaming, etc) take place.

●NVR 3 Client Application

The dedicated client application of NVR3 system - **NVR3 Workstation**, allowing the user to directly access NVR3 interface. A remote client can also access this system via network.



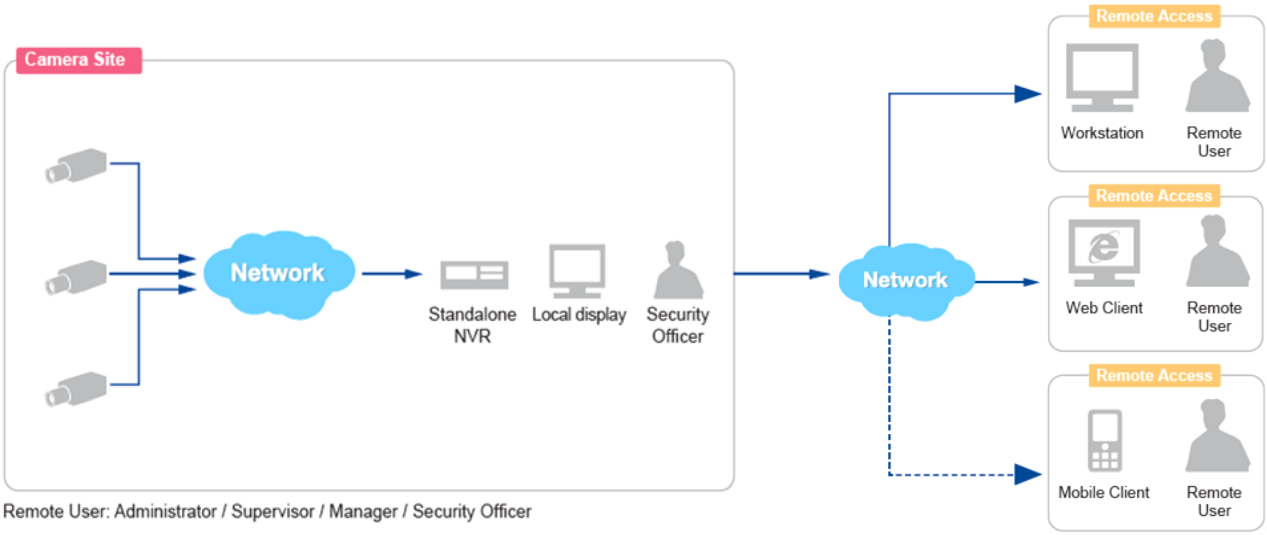
Server / Client Architecture

NVR 3 is a typical web-based server/client system. In a video surveillance system architecture, the **Server** serves as a video management service provider, aimed to run 24/7 offering non-stop services for clients. A **Client** makes requests of monitoring video streams or playback recordings to **Server**, which can reside on the same computer with server program (as from local) or on another computer (as from remote). **Server** starts automatically as soon as the **Server computer** (where it is installed) boots up, and operates in the background without requiring login by administrator. It would provide services over the TCP/IP network to multiple **Clients** upon request through HTTP Protocol.

There are two types of **Clients** in NVR 3 system: **Web Client** and **Workstation Client**. A user, connecting from whether web browser or workstation, will enjoy the same user interface and NVR functions.

- **Web Client**: the web version of interface to access NVR server without need of installing any client program to become a client. Logging in the NVR server is as simple as visiting a website through IE browser.

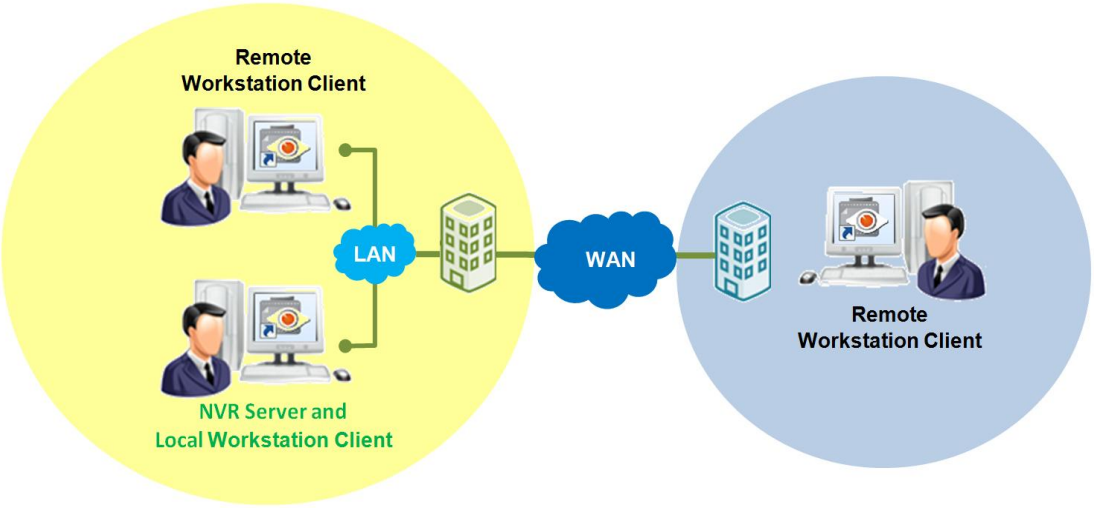
- **Workstation Client:** the client application making accessing NVR server free from the use of browser .The workstation includes a set of programs that provide interface between users and the NVR server.



Log In to the System

Access the NVR Server via NVR 3 Workstation

NVR3 Workstation includes a set of programs that provide the interface between users and the NVR server. It may be installed in the NVR server, or in the remote client computer that connects to the NVR server via network. For the local client of the NVR server, NVR3 Workstation will start automatically after you login to Windows; for the remote client, please double-click the shortcut icon on your desktop to execute this workstation application.



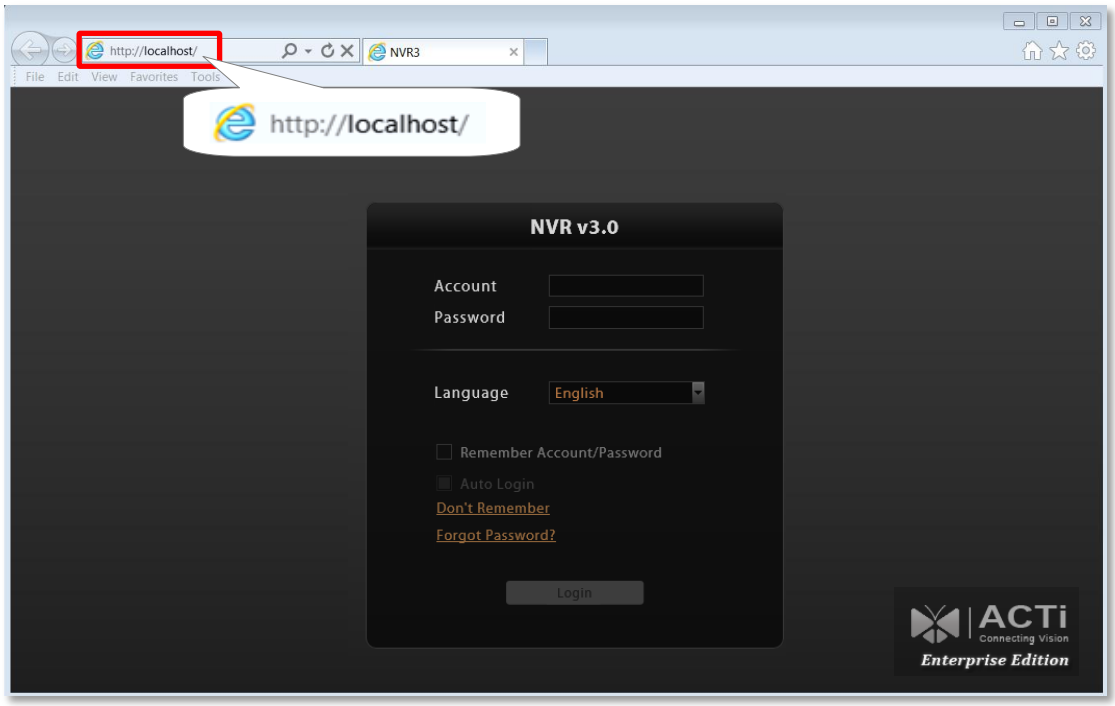
Log in to the System

There are two types of clients in NVR 3 system: **Web Client** and **Workstation Client**.
Both clients will enjoy the same user interface and functions. A web client can access NVR 3 system via the **Windows** default browser: **Internet Explorer**; while a workstation client requires the **NVR3 Workstation** pre-installed on the computer. This section will include the said methods to access your NVR 3 system.

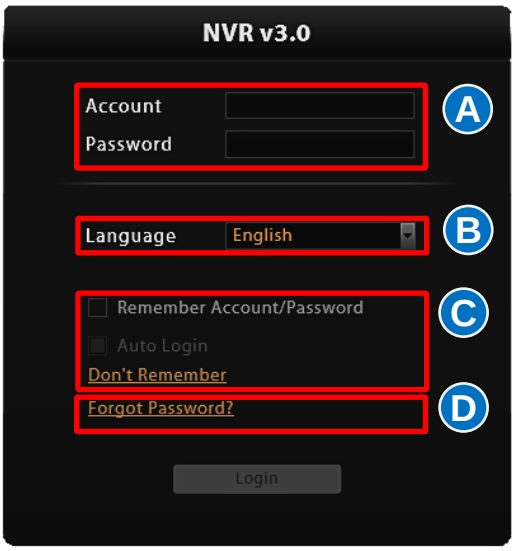
Access via Internet Explorer Browser

The computer where NVR server is installed is called **Server Computer**. You may access the server directly via Internet Explorer or **NVR3Workstation** on any other client computer.

Please open your browser, in URL box, type **http://server ip address:port number**, e.g. http://220.228.146.22:8888 (generally, the port number is 80 and can be ignored in the URL).
If your computer is exactly where NVR server is installed, you may simply type **http://localhost:port number**.



Login



A. Enter Account & Password

Please obtain the **Account** & **Password** information from **System Administrator** who has previously set up your User account in NVR 3 system.

●**Account** (non case-sensitive)**:** **deckard kain** (example)

●**Password** (case-sensitive)**:** **Aa123456** (example)

B. Change UI language

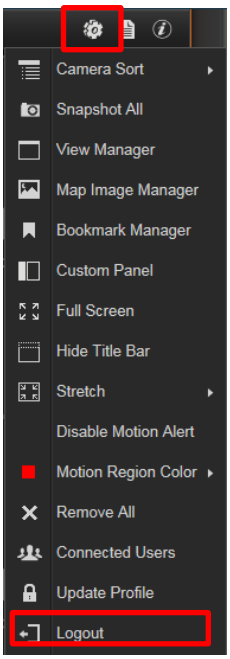
To change UI language, select the desired language from "**Language**" dropdown list.

C. Remember Account/Password

To have the server remember your Login **Account** and **Password** for future, check "**Remember Account/Password**". Click "**Don't Remember**" will clear your input text and reset to default.

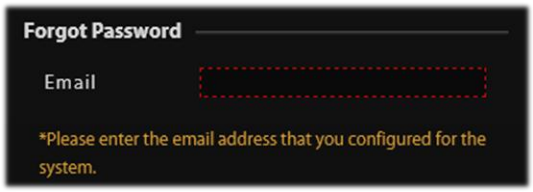
To directly enter the main page every time you log in from this PC in the future Check "**Remember Account/Password**" then "**Auto Login**" to skip the Login page. **If your computer may be accessed by someone without proper authority, please DO NOT use either of these functions**.

To cancel auto-login, on title bar, click → "**Logout**" to return to login page, and this function is cancelled.



D. Retrieve the User Password

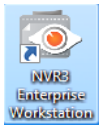
Once you forget the password, you may first contact the **System Administrator** or try helping yourself with this procedure. NVR can send your password to the email address you saved in NVR server, and it is strongly that you update your personal information after your first login Please note that this procedure is only available when NVR server has access to SMTP service.



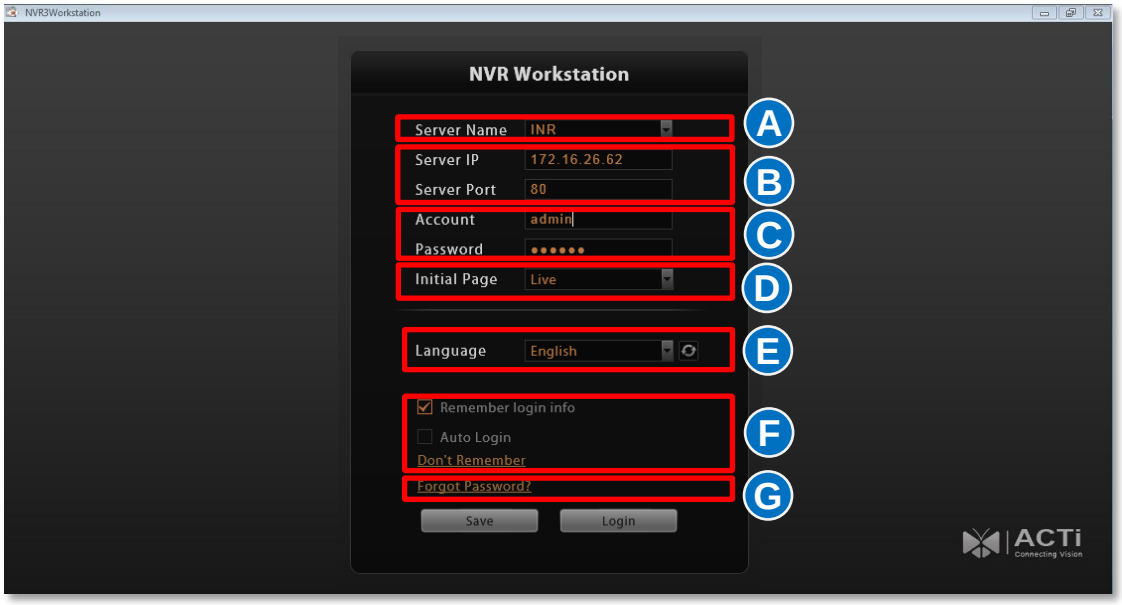
The email address input in **Forgot Password** window should match the one under your User account saved in NVR server.

Access via NVR3 Workstation

NVR3 Workstation includes a set of programs that provide the interface between users and NVR server. It may be installed in NVR server, or in the remote client computer that connects to NVR server via network. For the local client of NVR server, NVR3 Workstation will start automatically after you login to Windows; for the remote client, please double-click the shortcut icon on your desktop to execute this workstation application.



Double-click the shortcut icon on your desktop to execute this workstation application.



Login

Fill in the following fields then click "**Login**" to log in to the system. The login process of Workstation is very much the same as that of Web browser.

A. Choose a Server

NVR3 Workstation can remember multiple server sites and their login settings. Click on the arrow next to **Server Name**, and select a site from the dropdown list to log in.

B. Server IP & Server Port

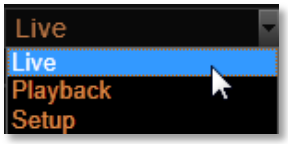
- In **Server IP** field, key in **localhost** or **127.0.0.1** if NVR3 Workstation is on the same computer with NVR server. If you are connecting from another computer, please input the ip address of server computer, for example: **220.228.146.21**.
- In **Server Port** field, key in the server port number, default is **80.**

C. Enter Account & Password

Please obtain the **Account** & **Password** information from **System Administrator** who has previously set up your User account in NVR 3 system.

- **Account** (non case-sensitive)**:** **deckard kain** (example)
- **Password** (case-sensitive): **Aa123456** (example)

D. Choose the Initial Screen



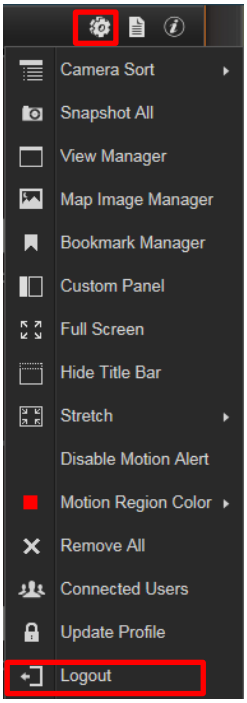
NVR 3 user interface consists of three main module screens: **Live View**, **Playback** and **Setup**, you may choose one where you would like to enter after logging in. Default is **Live View** screen.

E. Language

Choose a UI language from dropdown list.

F. Remember Login Information

To have **NVR3 Workstation** remember the **Account**, **Password,** your choices of **Initial Page** and UI **Language**, simply check "**Remember login info**". Click "**Don't Remember**" will clear your input text and reset to default.



To directly enter the desired page every time you log in from this PC , check "**Remember login info**" then "**Auto Login**" to skip the Login page. **If your computer may be accessed by someone else, you might consider not to use either of these functions**.

To cancel auto-login, on title bar, click → "**Logout**" to return to login page, and this function is cancelled.

G. Retrieve the User Password

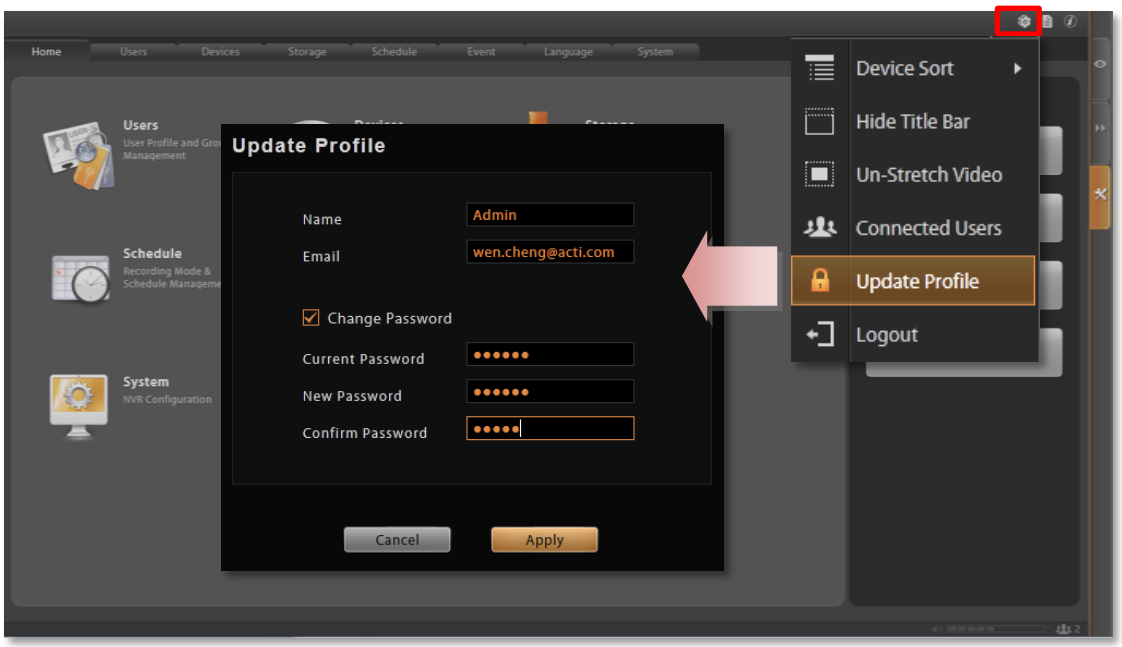
Please refer to D. Retrieve the User Password on page 13.

Change User Profile

You can maintain your own account information on NVR interface without **System Administrator**'s help.

On NVR screen, click → "**Update Profile**".

You may change the email address or password and then click "**Apply**" to save the settings to NVR server.

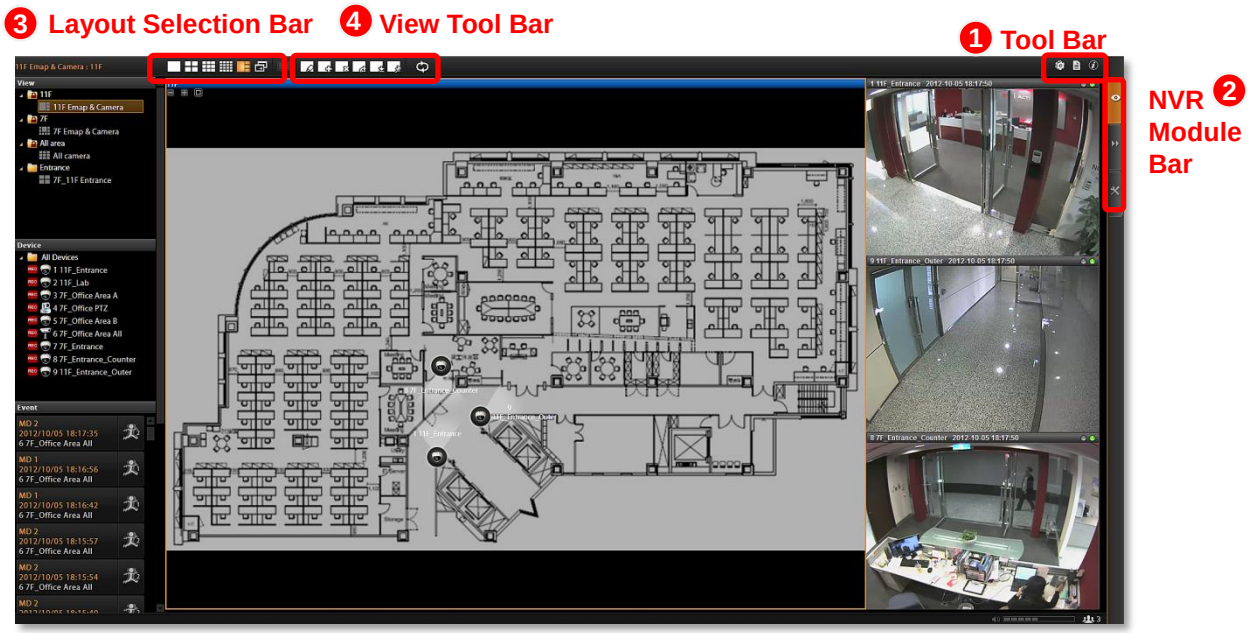


NVR User Interface Overview

Unlike some NVR system products on the market, whose tree-like structure may easily confuse the User. NVR 3's easy user interface structure saves you a lot of time and hassle going from one page to another. Once you log in to the system, you may switch to any of the main function modules: **Live View**, **Playback** and **Setup** on any screen.

NVR Resident Tool Bars

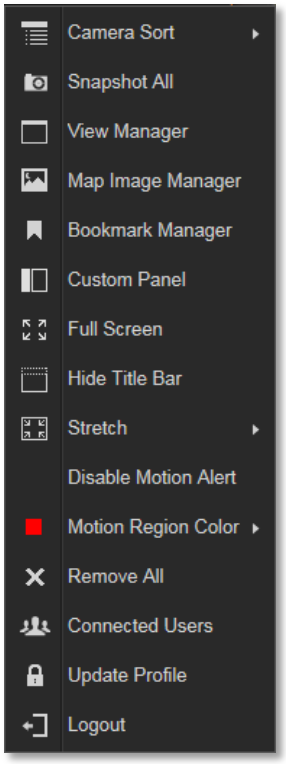
These resident tool bars are important functions or links that you often need through all the operations in NVR system.



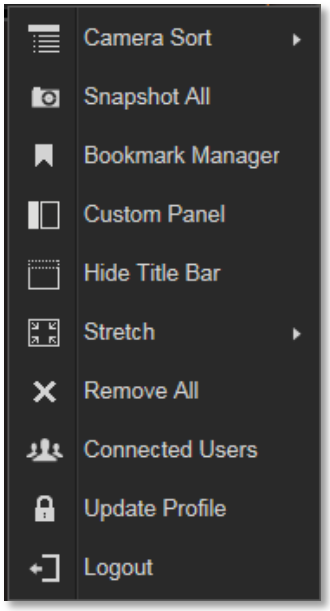
1 Tool Bar: To the right of title bar reside three links to most-used functions throughout all screens:

Options are certain useful functions you mostly need. The provided functions vary on different screens.

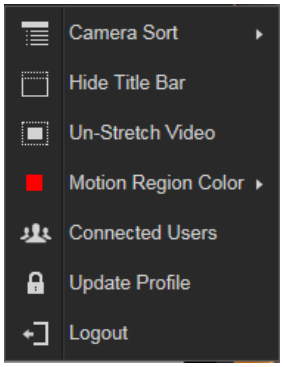
Live view Screen



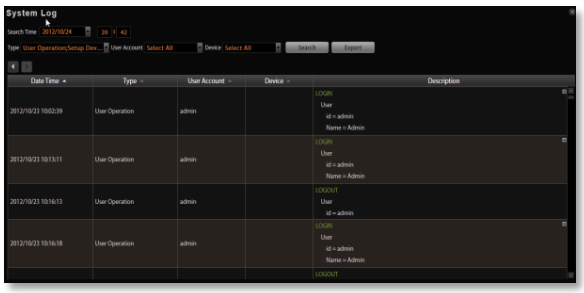
Playback Screen



Setup Screen



System Log provides the search module for you to review the records of user's behavior on this server. This is only available when your User right has permission to access it.



About Us displays the software version number and required ActiveX Control version number. You may also find ACTi supportive links here.

2 **NVR Module Bar** includes three main module screens: **Live View**, **Playback** and **Setup**. You can click the button to enter the function page directly.

3 **Layout Selection Bar** provides different layout styles for **Live View** and **Playback** screen.

4 **View Tool Bar** provides function keys for View editing on **Live View** screen.

NVR Main Screen

You will enter the live view screen after **Setup Wizard**. On the right are link buttons to three NVR major functions: (1) **Live**, (2) **Playback** and (3) **Setup**. You can click the orange button to enter the function page.

Live View

On Live screen, you can see live view from cameras, perform PTZ operations with mouse or Joystick, view system log, receive alerts on the event panel, setup view layouts, perform manual recording or take a snapshot.

Playback

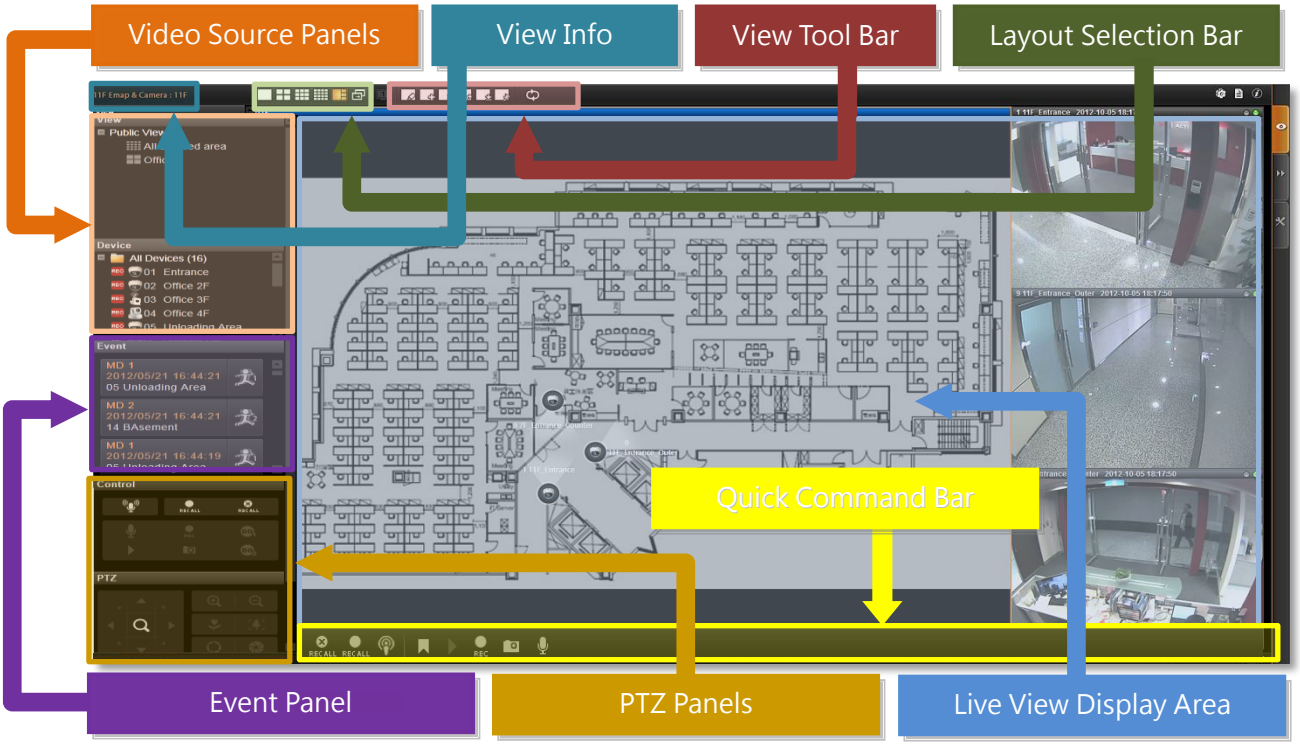
You may search and view playback of multiple channels synchronously. Snapshots or video segments can be taken from playback files. Recorded files can also be exported to AVI format here.

Setup

This screen allows you to perform user setup, device setup, event setup, schedule setup and system-wide settings.

Live View

Live View is the interface where you see the live views from your cameras. It is where most of the security professionals access the surveillance system. Aside from keeping an eye on the video, you may also cycle through View layouts, drag and drop various cameras to the screen, review a log of events, take snapshots, control PTZ cameras, start or stop recording on a given channel, trigger Digital output and broadcast or talk to specific cameras. In this section, you will be given instructions on the said fundamental operations. To start, click **Live View** tab to enter live view screen.



- **View Info**: displays the information: [Current View name][Focused Channel name].
- **Video Source Panels**: **View List** panel and **Camera list** panel provide two types of video source for live view display area.
- **Event Panel**: displays alerts of detected motion, abnormal system and device status.
- **PTZ Panels**: displays the onscreen buttons for you to manipulate PTZ operations.
- **Layout Selection Bar**: offers different layout styles.
- **View Tool Bar**: you may create a view and save it using the buttons here. You may also assign specific layout to start patrolling.
- **Live View Display Area**: you may add up to 64 channels into this area to monitor them concurrently.

Watch Live View

Upon logging in to the system, you will enter the live view screen. If your System Administrator or colleagues have already set the default layout, you may immediately see the live view, and start monitoring without the need to arrange the cameras or layouts.

Select a View

In NVR 3 system, a **View** refers to the layout where the live images of a few cameras are arranged in proper positions to suit the monitoring purpose. This is very similar to a **Camera Group**, which consists of cameras in the same physical location or with the same camera functions. For example, a View named **First Floor** may contain the cameras that actually placed in the secured area on the first floor. Once created, each camera view is assigned to a certain channel on the layout style selected by creator.

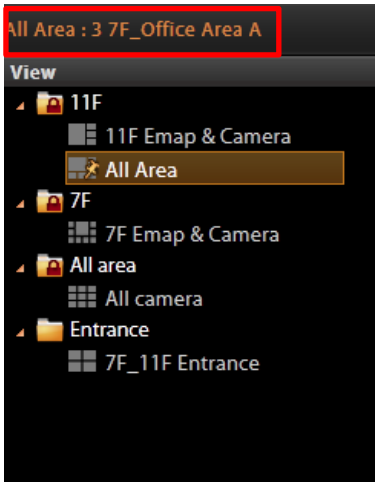
Note

Based on your User Group permissions, you may or may not own the privilege

- To create, edit or delete a **Public View** or a **Private View**
- To assign a specific View as default View
- To see all the cameras included in a **Public View**.

Therefore, you may find certain view edit functions not available on the **View Tool Bar**.

To watch a saved View, simply click on it on **View List** panel.



Above the **View List** panel title will display [Current View name]:Camera name

- The **Public Views** are open to every User
- The **Private Views** are only available to the User who created them. You may not see this folder if without the User right to own the **Private Views**.
- The view with a pin on it is set by System Administrator as default view. You will enter this view every time you log in.

For details about how to create and edit a **View**, please refer to the chapter **Customize Views** in NVR 3 Enterprise Administrator's Manual.

Select a Camera

To watch the live view of individual cameras, you need to identify and add this camera video stream to a blank channel in display area. All the cameras that you are allowed to see are in the **Camera list** panel on the left. The permissions to watch different cameras are defined by your User Group, the details of which are managed by the System Administrator.

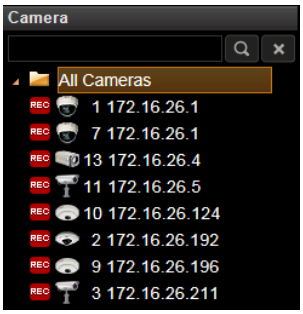
To pull in video sources to the display area:

From **Camera** panel, double-click on a camera or drag it to **Display** area. By double-clicking on "**All Cameras**", all the cameras will be added to the **Display** area.

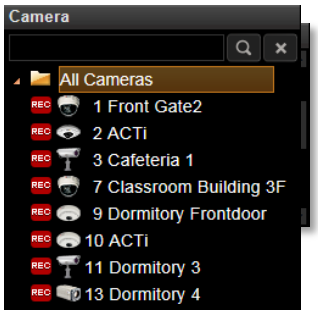
Camera List

To view the camera information, put the cursor over the camera figure to bring the info box up.

In **Camera** panel, you may also sort the cameras in different order. Click on title bar, select "**Camera Sort**", and choose "**by IP**" or "**by ID**" as the sorting method.



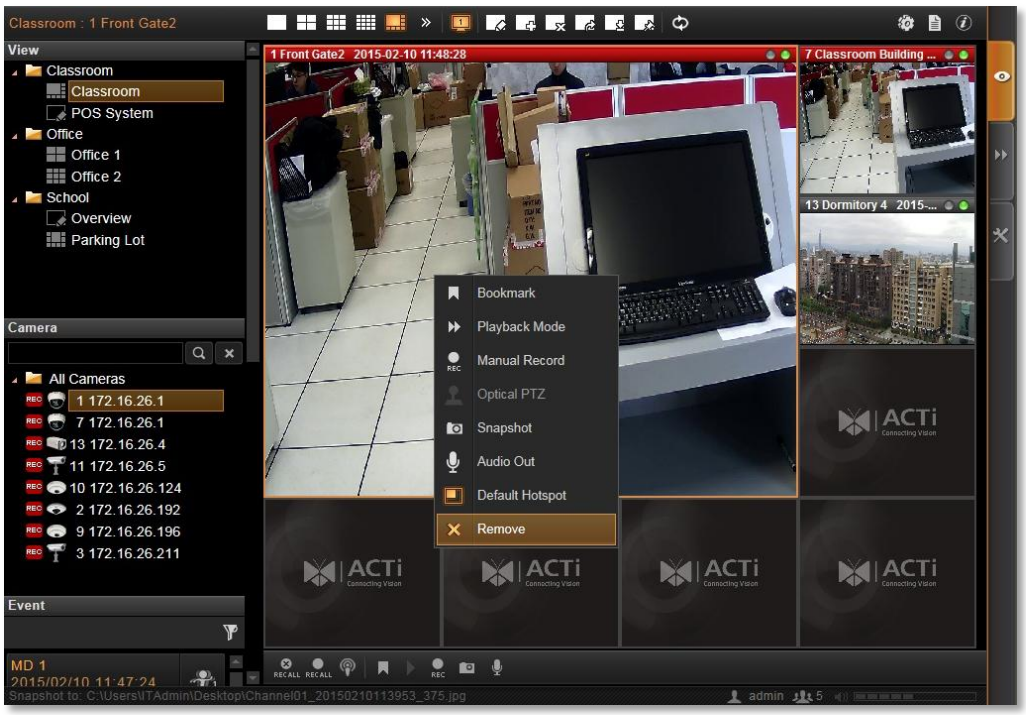
By Device IP



By Device ID (default)

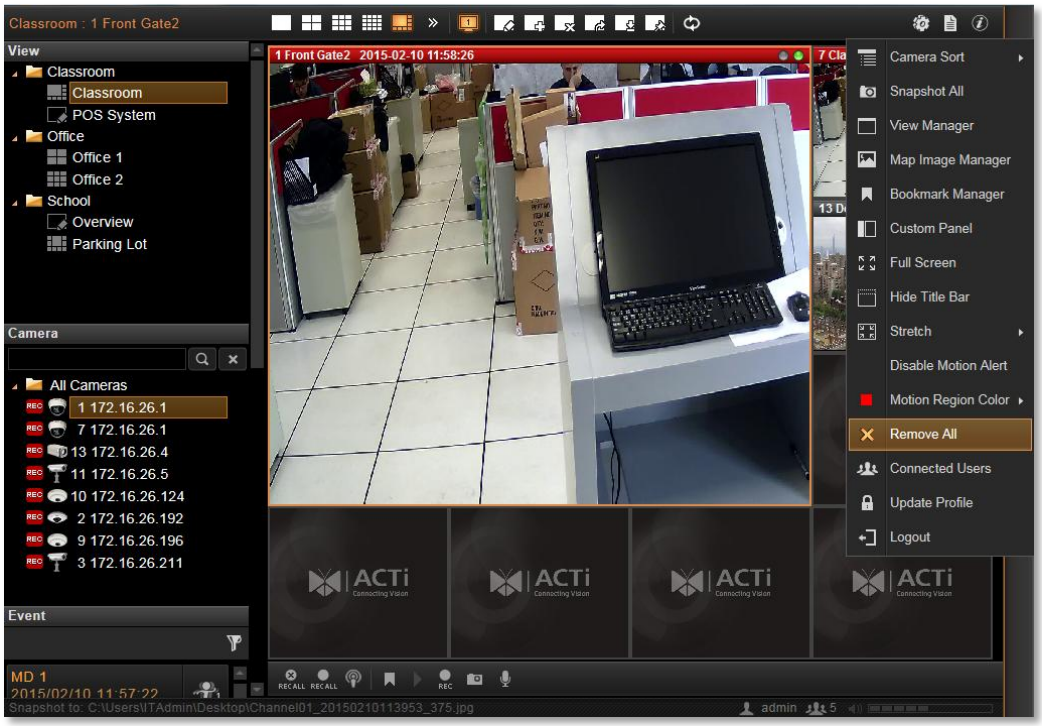
Remove a Channel

To remove a channel from display window, you may right-click to bring up quick menu on the channel, and select "**Remove**" to remove this video source.



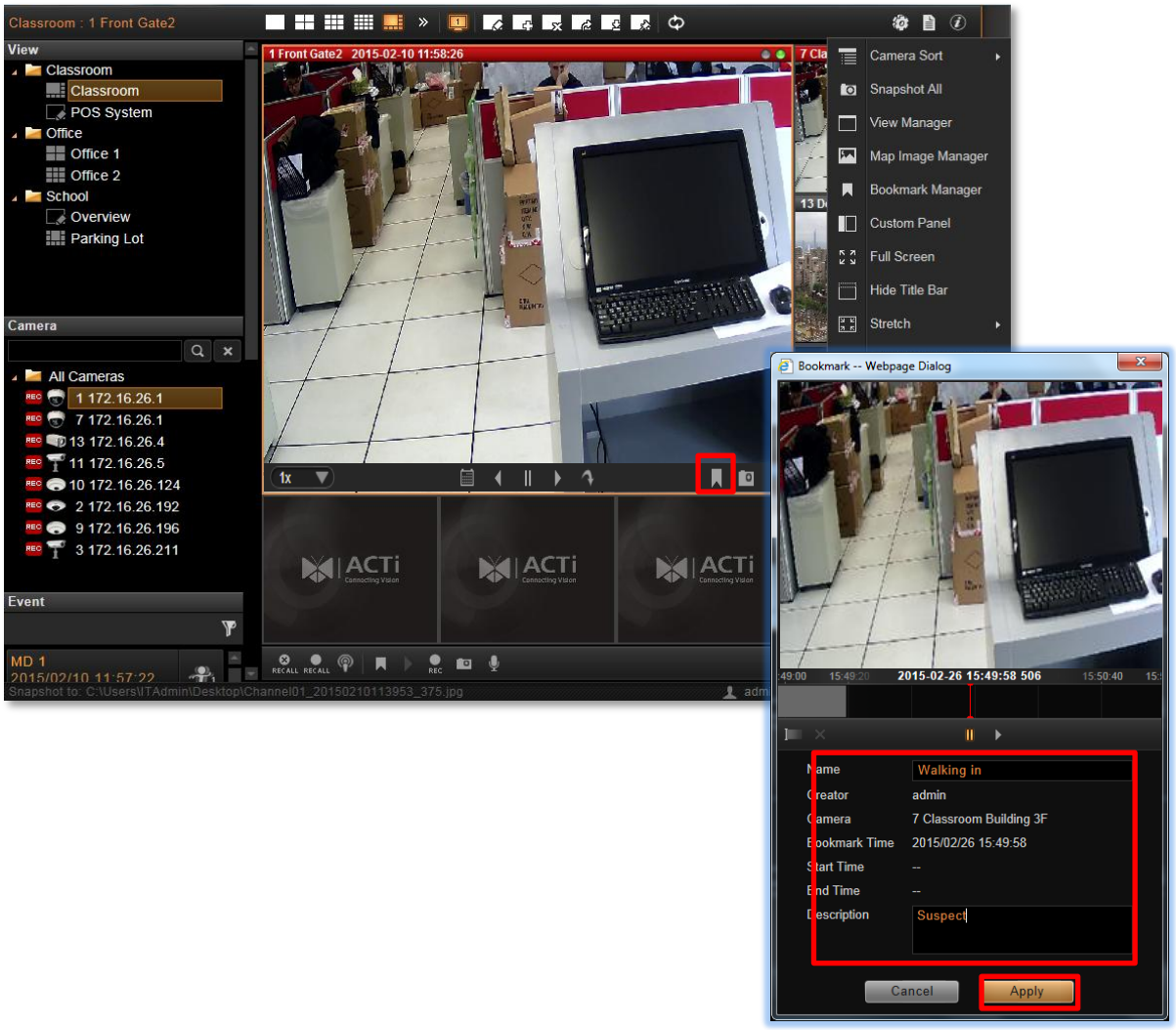
Remove All Channels

You may disconnect all cameras by clicking in title bar and selecting "**Remove All**".



Add Bookmark

During live monitoring, you can create a bookmark of any time on any channel and edit your remark for it. Select a channel, on the floating command bar, click on the bookmark button. On **Bookmark** window, input the name and description of this bookmark and then click on "**Apply**".



Tip

Full Screen

On system title bar, click then select "**Full Screen**" to enter full screen mode. Click the icon on top right corner of title bar to return to normal mode.

Stretch/Un-stretch Channel View

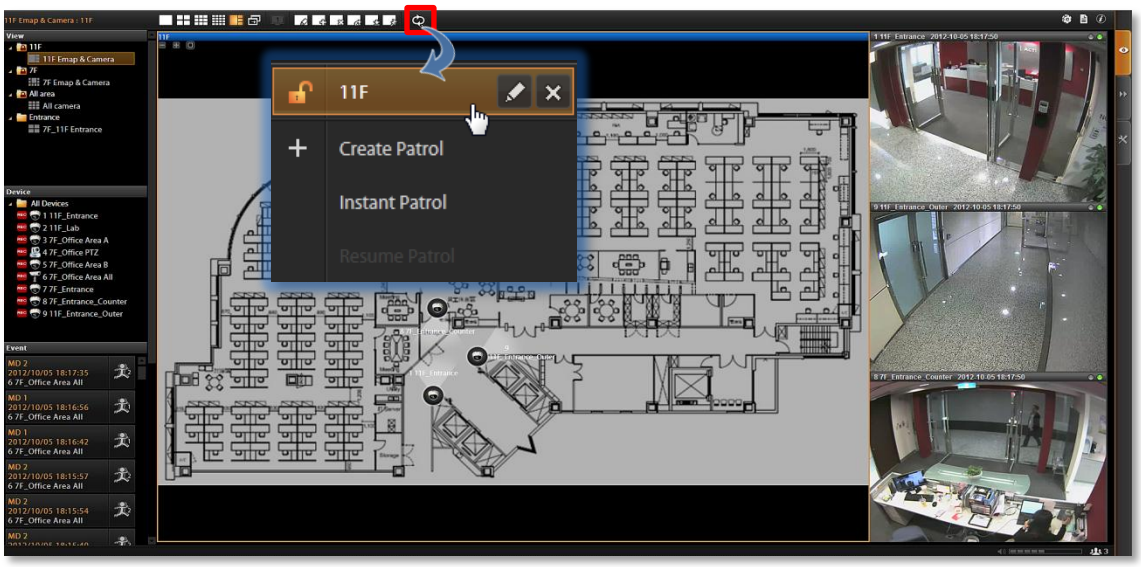
On title bar, click then select "**Stretch**" to make the width of video to fulfill the window.

Enable View Patrol

You may have the saved Views patrol in turns. In this way, the views in different areas in your site may cycle through themselves for you automatically.

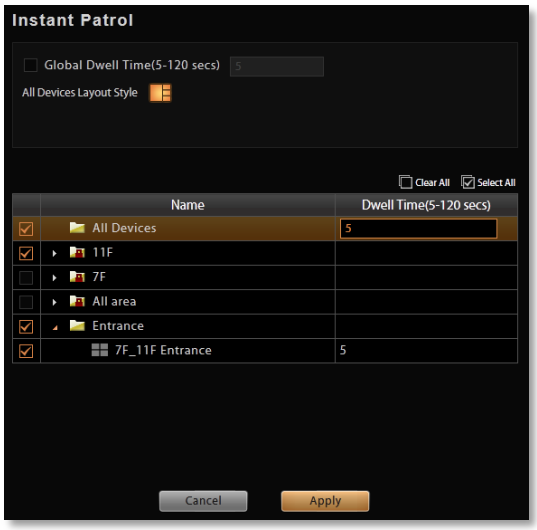
On title bar, click to select a saved patrol. As patrolling is running on Live View is doing patrol, click to stop.

You may create an **Instant Patrol**, which will only temporarily take effect during your current login.



To configure the instant patrol, please:

1. Define the **Global Dwell Time** between the views. If you want to set different dwell time length for individual Views, do not check this option, and configure them separately in below table.
2. Choose the **Views** to display in patrol. If you select the **All Cameras** group, you will also need to select "**All Camera Layout Style**" for it.
3. Click "**Apply**" to save the settings. This patrol will instantly start running until you click .



Monitor the System

The security monitoring, in surveillance world, involve monitoring or patrolling the whole site, discovering unusual circumstances or investigating the scene at the earliest time. The said tasks would require knowledge and skills to make use of NVR server functions. This section will introduce the essentials of how you achieve the goal with NVR 3.0 server.

Read System Alerts and Channel Status

On NVR **Live view** screen, it is essential to observe the system status events. As unexpected environmental factors or human behaviors may take place to influence your surveillance system like power failure or internet connection interruption, NVR server may lose the connection with cameras, and hence you might lose the important video evidence.

Channel Status

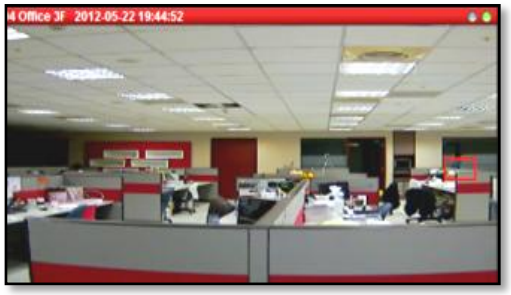
The title bar of each channel window displays certain status information about this camera.

The indicators

The color of two indicators on top right channel title bar shows the following status:

- **Right**
  - :Device is connected with video presence
  - :Devices is not connected
  - :Device is connected, video is not received
- **Left**
  - : Performing manual recording
  - : Taking snapshot

If this camera is triggered by events such as video motion, PIR motion or digital input device, the channel title bar would turn red for a while to alert you that some movements have been detected.

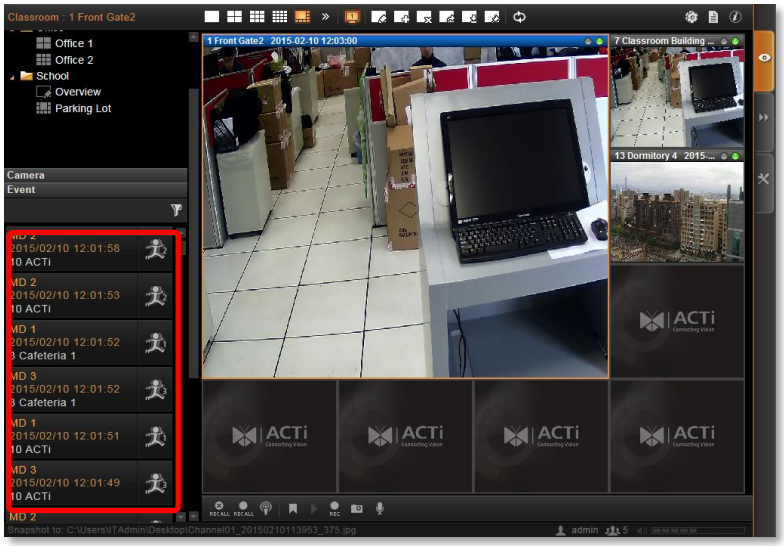


On a map channel, if a camera is triggered by events such as video motion, PIR motion or digital input device, an event icon will blibk besided the camera icon for a few seconds.

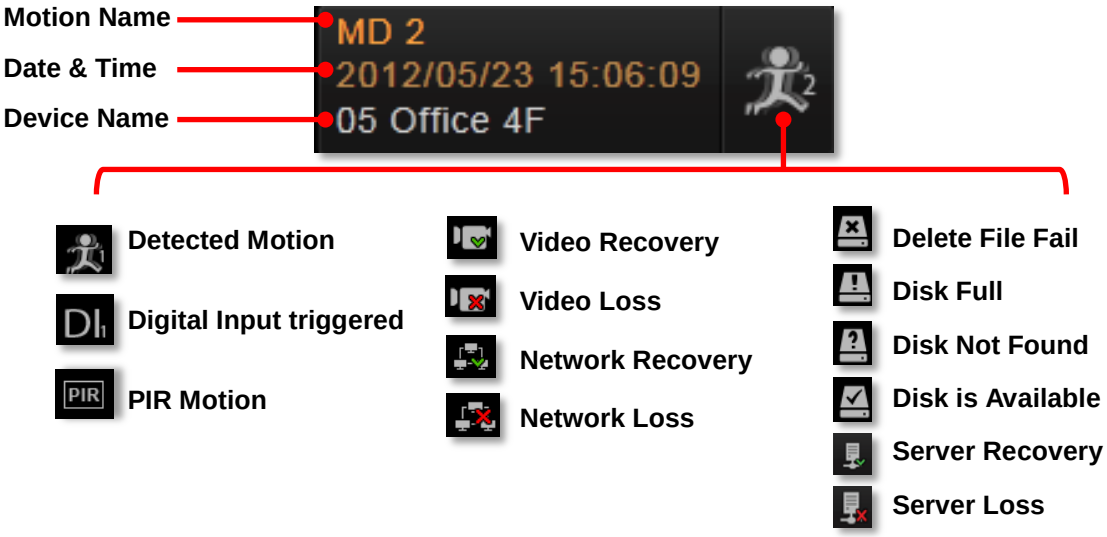
Click on the camera icon to see mini live view window on the map.

Event Panel

It is important to check out the messages pushed into **Event** panel all the time. These messages are arranged in a reverse-time order (newest on top, oldest on bottom).



The messages notify you of the following camera or system status:



Important Notice

When NVR server fails to connect a device, to get the video or have disk problems, it might be caused by a temporary network disconnection in your overall environment. The connection might recover after the problem is fixed. If not, please contact your System Administrator.

Instant Event Playback

Among these types of Event messages, you may individually watch the event playback of a motion (video motion, DI or PIR) event or transmission status event (video recovery & loss, network recovery& loss).

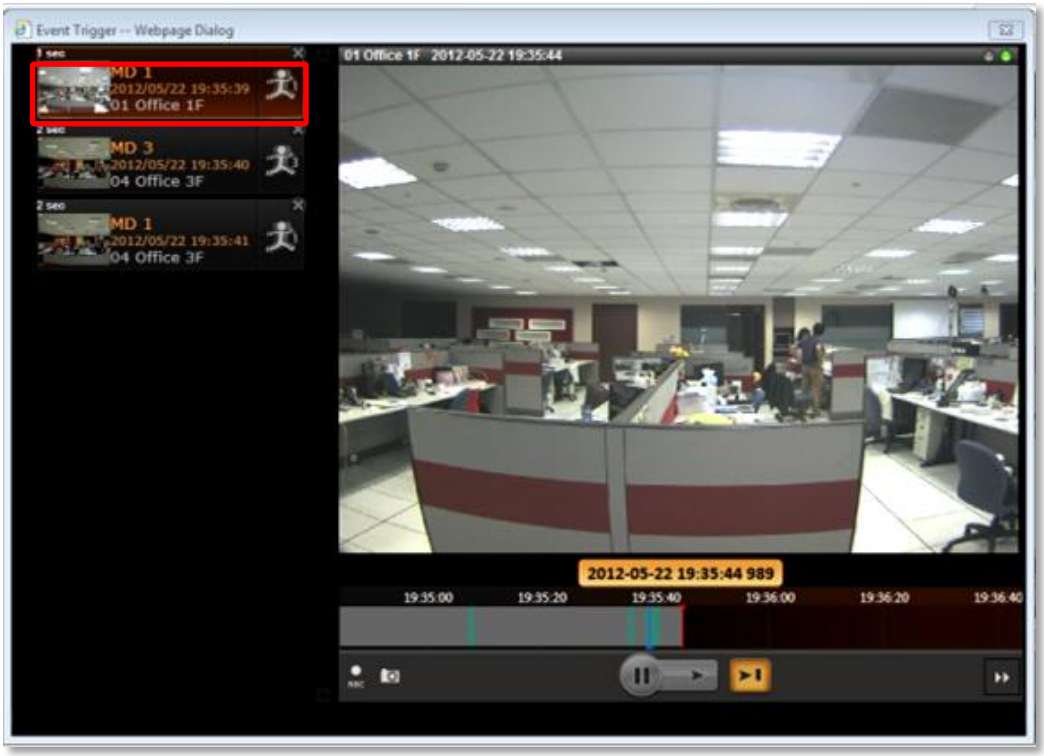
To bring up the instant event playback window, double-click on an event entry:

As the window pops out, it will immediately start playing live view stream. You may draw the time bar back and forth to search.

- Click to play video, to pause, or to play live view video.
- On time bar, click the blue mark or which indicates the event's occurrence, and then to playback this event.
- Click to start manual recording the currently-playing video.
- Click to take a snapshot of this view.
- Click to switch to **Playback** screen.
- Click on top right of the window title to close.

Pop-up Event Playback

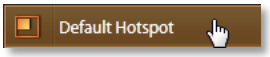
Sometimes the instant event playback window would automatically pop-up to notify you of events detected on certain camera sites. As the events in certain sensitive spots will have higher priority than other channels, your System Administrator would apply this "**Pop-up Event Window**" function to these cameras. In this way, these critical events will be pushed into your sight actively.



On the left of the window may list a series of motions detected within the same period. You may double-click on any entry to see its live view or playback the event. This window would automatically disappear after a while, and you may still look these events up in the **Event** panel.

Hot-spot Window

In your Live View screen, the upper left window may sometimes display a camera video instead of the original channel. This is because the events detected in certain sensitive spots will have higher priority than other channels. Whichever View you are watching, the events detected by those cameras will be temporarily displayed in this window to catch your attention.

You can set any other channel on your live view screen to be the default hotspot channel. Right-click on the desired channel and select **"Default Hotspot"** 

Motion Region Indicator

The motion region indicator is a red frame that blinks when motion inside this ROI (Region of Interest) is detected.

You can turn off the indicators of all channels on Live View screen. On Live View screen, click → "**Disable Motion Alert**".

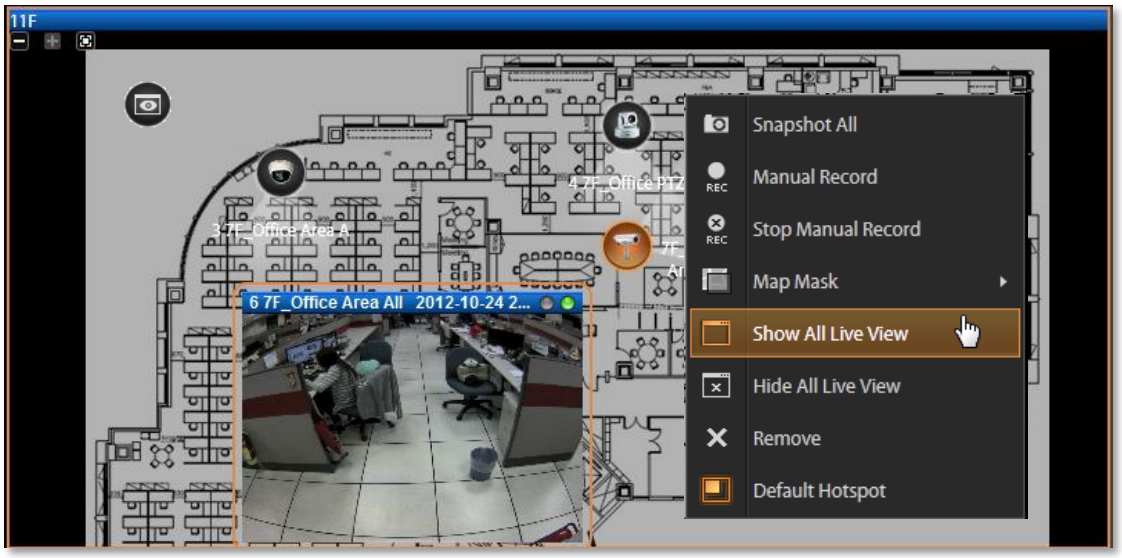
Live View Operations

Aside from pure watching, there are more benefits provided by NVR server to accomplish more tasks. For example, you may make use of the audio function to commutate with people on camera side, look into more details with PTZ cameras, or navigate the whole scene on the maps.

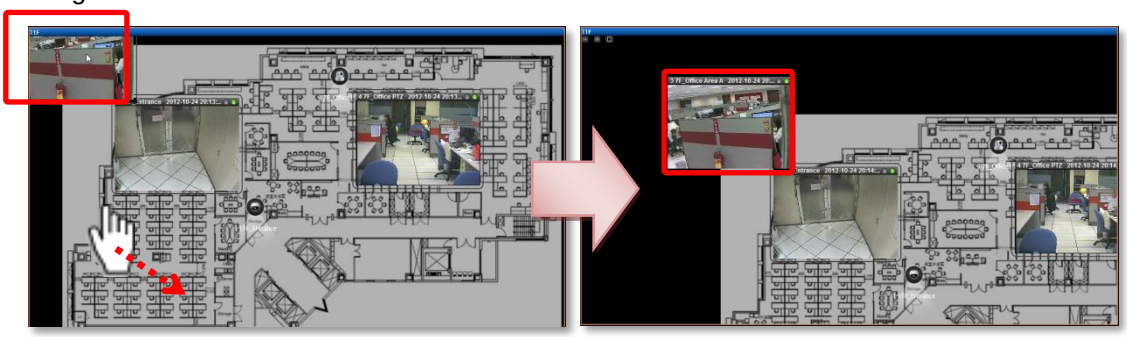
Show Mini Live View Windows on a Map

You may open mini live view windows of all cameras on a map channel to get an overview of what is happening on this map.

- Click on the icon to enter another linked map.
- Double-click on a camera icon to open its live view window.
- On the map channel, right-click and select "**Show All Live View**".

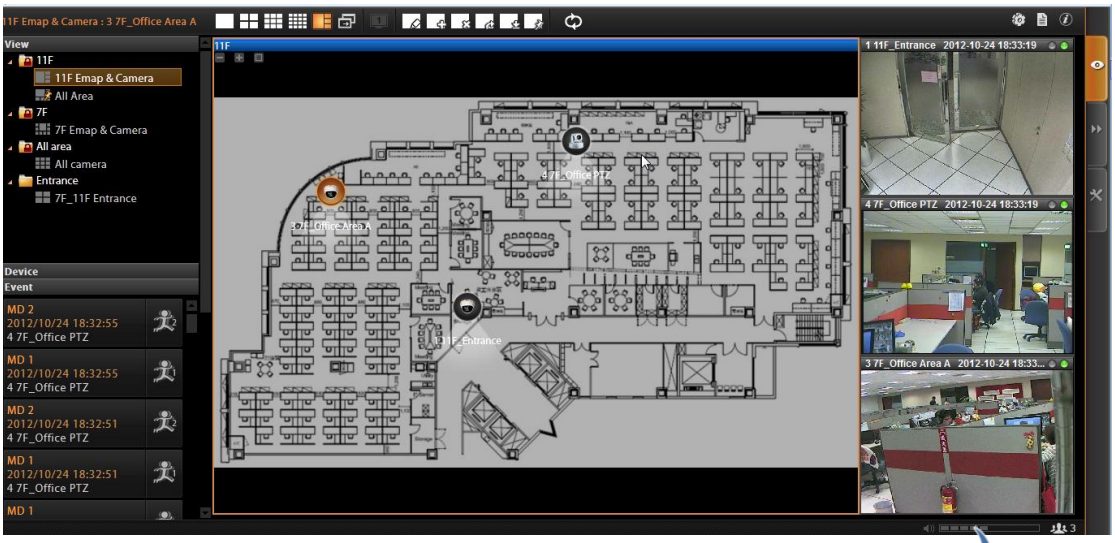


If certain mini windows appear out of view, you can drag on anywhere on the map to move the image until the window reveals.



Adjust Audio-in Volume

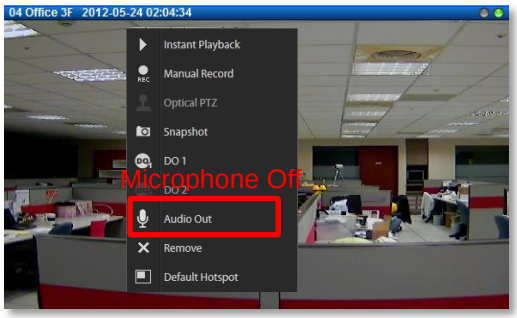
If one or more cameras are connected with an audio-in device like a microphone, or supports two-way audio function, the audio signal will be recorded along with video stream. You may listen to the real-time audio on **Live View** screen or recorded audio in **Playback** screen. In **Live view**, NVR server will send out the audio signal when you select a channel. On bottom right of **Live View** screen is the audio-in volume control.

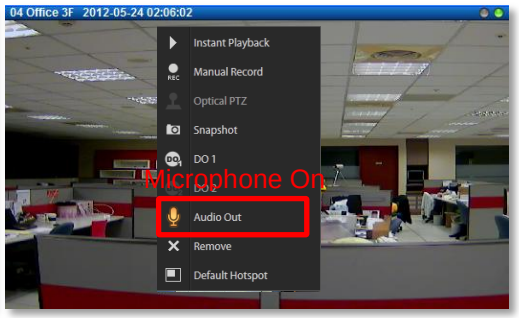


- To mute the channel audio, click .
- To activate the channel audio, click .
- To adjust audio volume, drag on the volume meter.

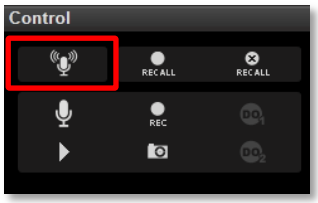
Send Audio Signal

- To talk to the audience through speaker connected to one camera, right-click on a channel to bring up the quick menu, and select "**Audio Out**". When this icon appears in orange, your audio-out function is activated, every sound you make through the microphone on your client computer will be sent out to this camera only.





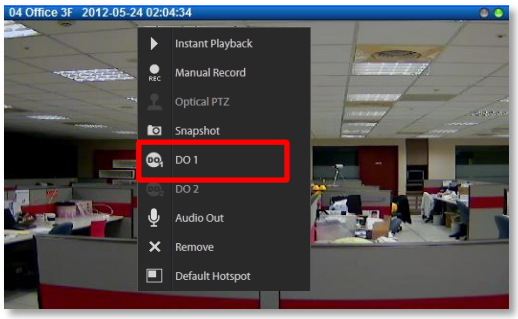
- To broadcast to multiple cameras, click on **Live View Control** panel. Your audio will be sent to all the channels connected to a speaker in current View.



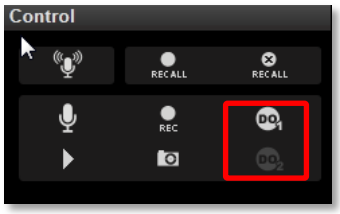
Trigger Digital-out Device

If a camera is connected with a digital-out device such as a door contact or an alarm, you may trigger it via NVR server on **Live View** screen. Do either of the following:

On the channel, right-click to bring up the quick menu, the DO icon will appear available if the corresponding DO device is connected. Click "**DO**" to trigger it, click again to stop triggering.



● As a channel is focused, click on **Live view Control** panel, click again to stop triggering.

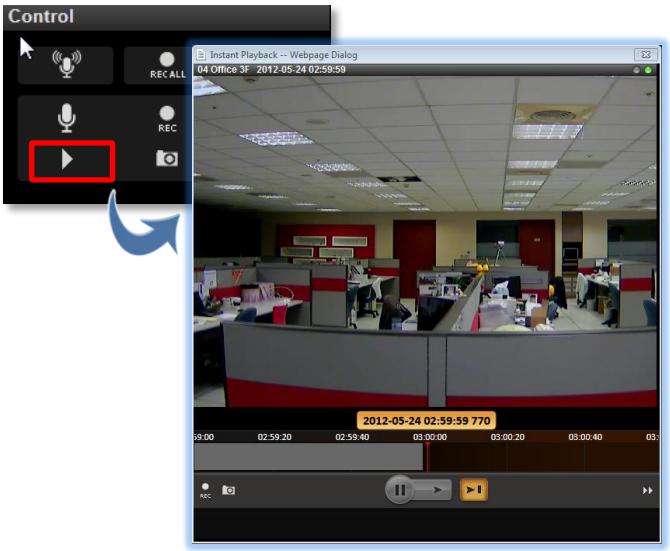


Note

Trigger DO and sending audio to a specific device are only available on a single camera channel. On a map channel, you may do "**Audio Broadcast**" to all devices in this view.

Watch Instant Playback of a Channel

You may watch the playback of any channel in a pop-up window on **Live View** without switching to **Playback** screen. As a channel is focused, click on **Live View Control** panel.



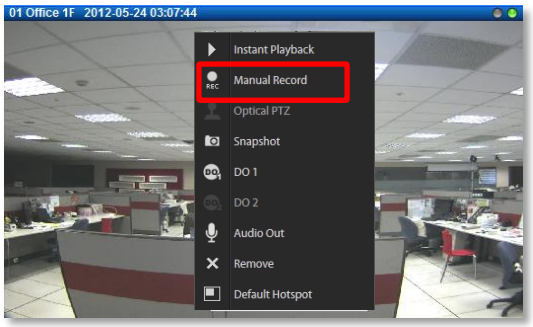
Manual Recording

You may manually record the real-time video on **Live view** screen. This video will only be searchable in **Playback**. You may switch to **Playback** screen to find this clip (please refer to the section in this manual: How to Do Playback on page 41 for instructions).

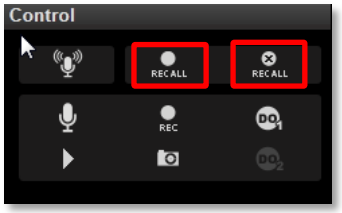
To do manual recording, do one of the following:

- On a channel, right-click to bring up the quick menu, then select "**Manual Record**".

Once the recording starts, the left indicator on the channel title bar will turn red. To stop recording, click "**Manual Record**" again on quick menu.



- To manual record all channels in current View, on **Live view Control** panel, click REC ALL to start; click REC ALL to stop.

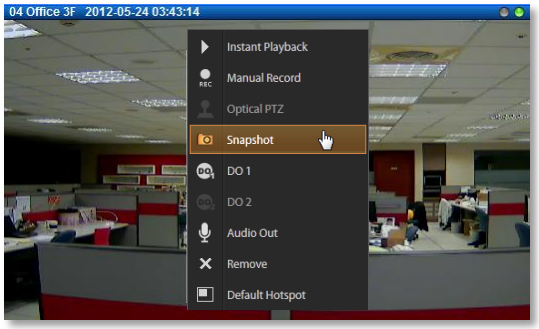


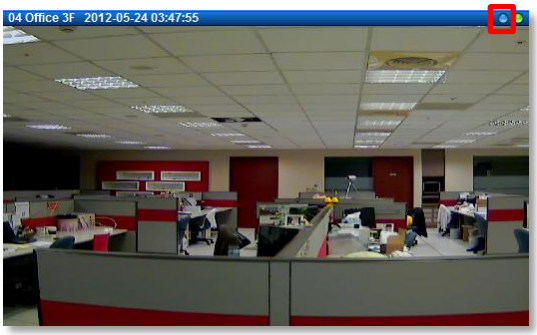
Take a Snapshot of Live Image

You may take a snapshot on a channel live image on **Live View** screen. The snapshot will be saved to default folder on your client computer as .jpg format (The system default location is **Windows Desktop**). You may find the location path on the bottom of NVR window after taking a snapshot.

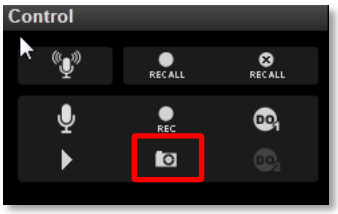
You may do one of the following to take a snapshot:

● On a channel, right-click to bring up the quick menu and select "**Snapshot**". While the snapshot is being taken, the left indicator on the channel title bar will turn blue. After the picture is taken, the indicator will then turn grey.





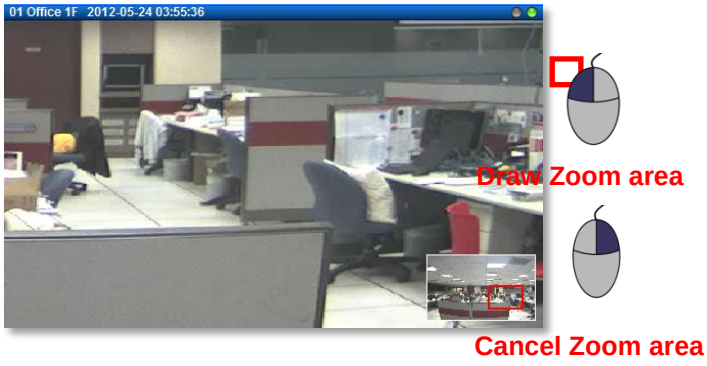
● As a channel is focused, click on **Live view Control** panel to take a snapshot.



Digital PTZ Operation

Regardless of the camera models, you may perform digital zooming on **Live view** screen.

1. Click and drag a highlight rectangle over any channel, and the area highlighted will be displayed in the full live video window. In this mode, a picture-in-picture view will show in the lower right of live view window. A red rectangle will mark the currently enlarged view area within the full size video. You may drag the red rectangle over the image to zoom another area.



2. To go back to the original full video view, just right-click on the minimized Picture in Picture view.

Optical PTZ Operation

If there is a camera supporting optical pan/tilt/zoom function in current view, you may operate it via the **PTZ** panel.

Once you select the camera, the optical PTZ controls will become available on **PTZ Panel**.

PTZ Panel Overview

Digital/Optical Zoom switch
Click to switch the PTZ mode between digital PTZ and optical PTZ mode. A non-PTZ device will only have digital PTZ mode.

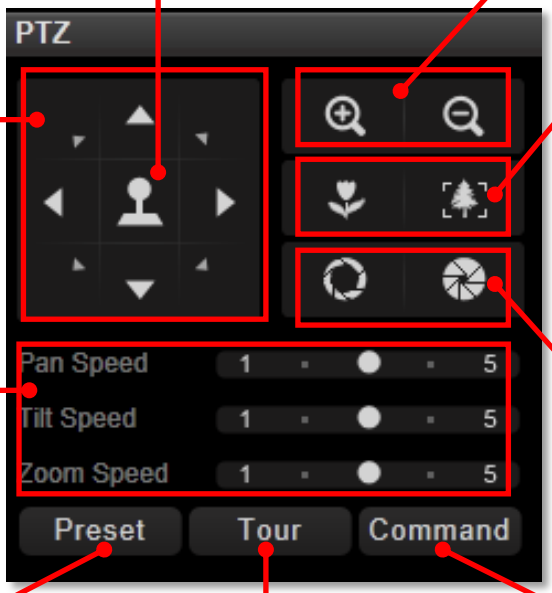
Zoom Controls
If the camera has controllable zoom, these two buttons will zoom the lens in or out.

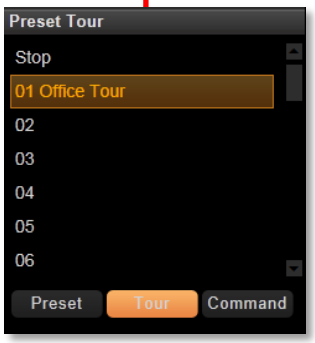
8-directional PTZ navigation controls
Click to control PTZ movements.

Focus Controls
If the camera has controllable focus, this will shift the focus of the camera.

Pan/Tilt/Zoom Speed Controls
Click on the speed meter to define the speed of PTZ movement.

Iris Controls
If the camera has controllable iris, these two buttons will modify Iris level.





Goto Preset Menu
Select the preset point name from the list to go to the spot. Click the title "**Goto Preset**" to close menu.

Preset Tour Menu
Select a tour name from the list to start a PTZ tour. Click "**Stop**" to stop touring. Click the title "**Preset Tour**" to close menu.

PTZ Command Menu
Select a command from the list to execute particular action command. Click the title "**PTZ Command**" to close menu.

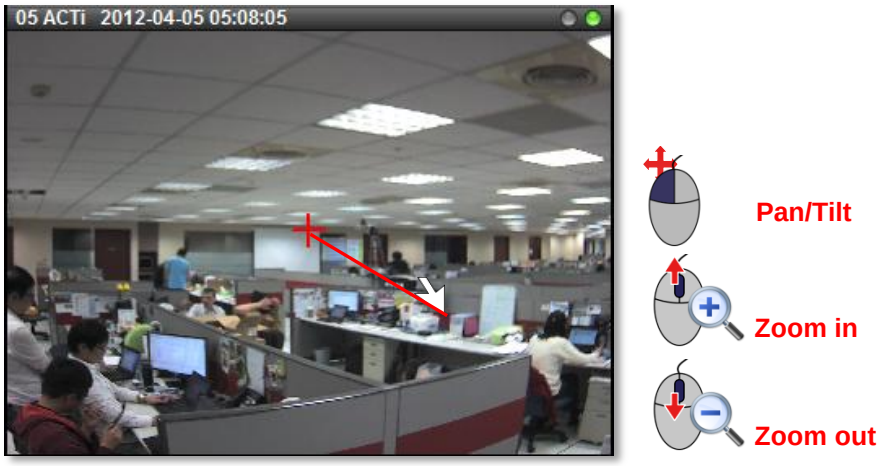
Using Mouse Controls

You may also use mouse to perform PTZ negation on a channel view or a mini live view window on a map.

Place the mouse over the channel to do the following PTZ operations:

● To execute optical **Panning** and **Tilting**, click anywhere on the live window to allow the camera to move in that direction. The length of the direction indicator is proportional to the Pan and Tilt speed. The farther you place the cursor from the center, the faster the Pan/Tilt movement.

● To execute optical **Zoom in** or **Zoom out**, scroll the mouse wheel forward to zoom in; scroll the mouse wheel backward to zoom out.



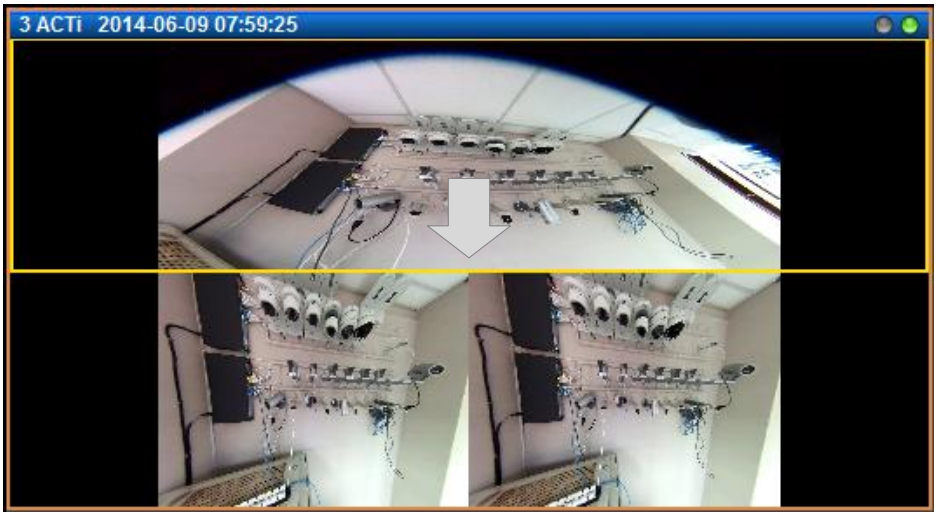
Navigate a Fisheye Camera Channel

On a fisheye camera channel, you may change the fisheye view mode and view point at will. What you see on **Live View** screen will not affect what is being recorded, and you can have an alternative of view mode when doing playback.

Change Fisheye Mode

On this channel, right-click to bring up channel menu, click "**Fisheye Mode**" and select one mode.

When you click on a channel which is set to such modes : **Panorama** mode with **Wall** mounting, **Double Panorama** mode with **Wall** mounting, **Panorama Focus** mode with **Wall** mounting and **Double Panorama** mode with **Ceiling** mounting, a clickable cursor will appear on the view to allow you explore the image.

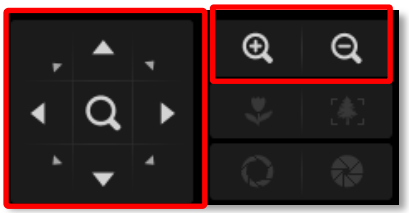


PTZ Operation

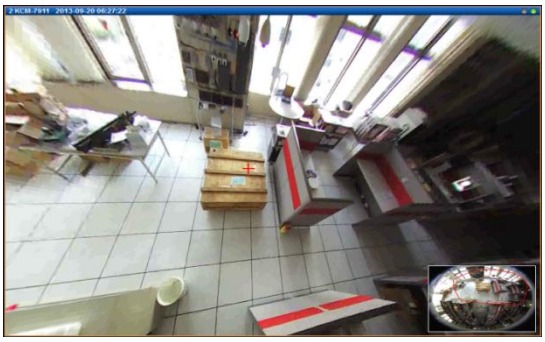
Select a fisheye mode; click the entire channel or a region of interest to navigate this view

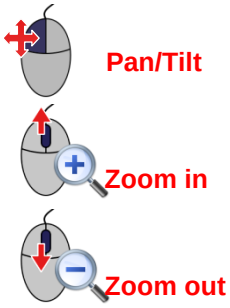
- Use **PTZ Panel** controls to operate PTZ movements:

PTZ Controls on PTZ Panel



- Click the mouse anywhere on the view to pan/tilt, scroll the mouse wheel to zoom in/out.





- To reset the PTZ navigation area back to default viewing angle, right-click to bring up channel menu, and then click "**Reset**".

Note

Once a channel is changed to any of the following fisheye modes: **Dewarping**, **Panorama**, **Double Panorama**, **Panorama/Focus** or **Quad**, the resolution of this live stream will become 1920x1080, so will the resolution of the snapshot.

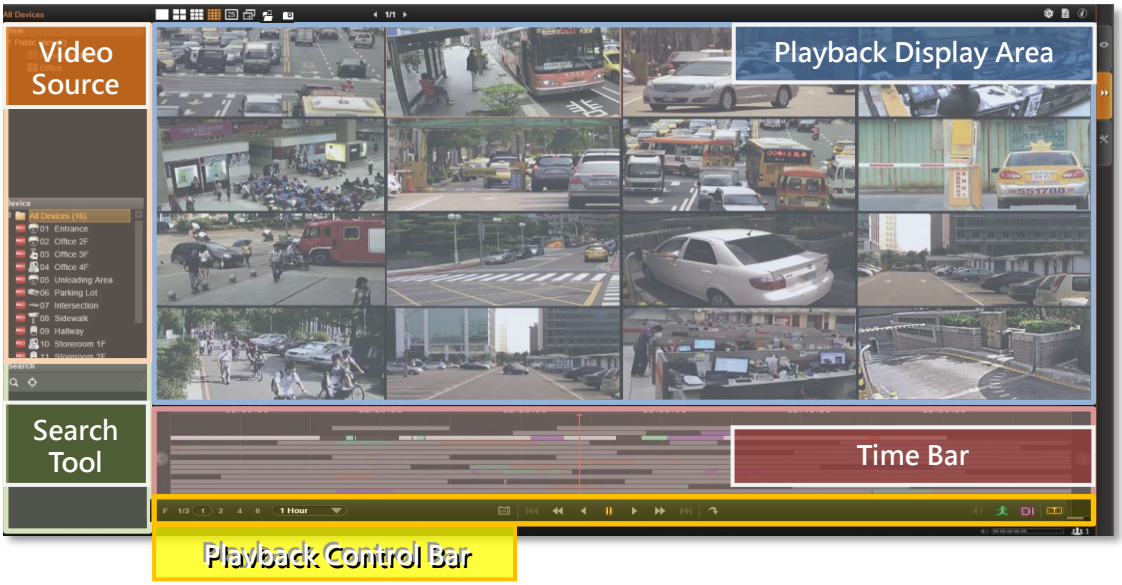
Playback

NVR Playback is the NVR module that processes recorded clips, where you may search, playback and export video. Multiple channels can be played synchronizedly, and video clips may also be exported in either RAW or AVI formats.

Playback UI Introduction

Playback screen consists of four function areas: **Video Source**, **Playback Display**, **Time Bar** and **Search Panel**.

- **Video Source**: Provides both saved **View**s and **Camera Tree,** you may drag a view or camera to **Playback Display** Area to view the recordings.
- **Playback Display**: You may have multiple-channel synchronized playback in this area
- **Time Bar**: The time bar of the video source in **Playback Display** area will be shown here. You may drag on the time bar back and forth to your desired time spot.
- **Search Tool**: Other than navigating the recordings by scrolling the time bar, you are provided with two search methods: IVS smart search and event type search. In this area, you will define your customized search filters.
- **Playback Control Bar**: All the controls related to video playing including play speed switch, play or pause button.



How to Do Playback

On NVR screen, click into "**Playback**" page to enter **Playback** view, none of the video sources is selected in the beginning, and you have to select your desired channels.

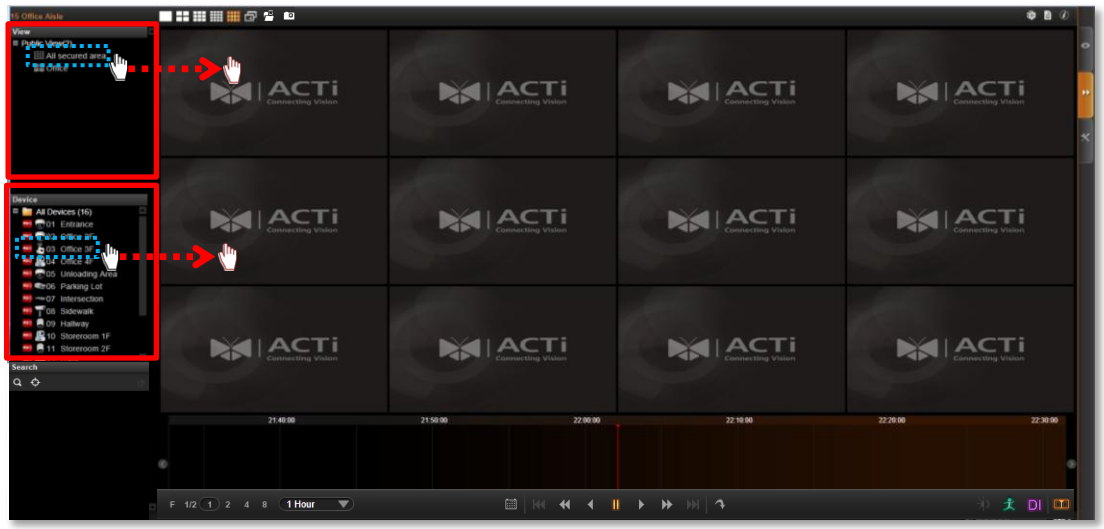
Add Video Source

There are two ways to pull in video sources:

1. In **View** area, click on a saved view.
2. From **Camera** panel, double-click on a camera or drag it to **Display** area.

Through either way, you may add video sources, and their time bars will display in **Time Bar** area. Your playback operations and search will be based on these selected channels.

In the meanwhile, you may change the layout styles from **Layout Selection Bar** on title bar.



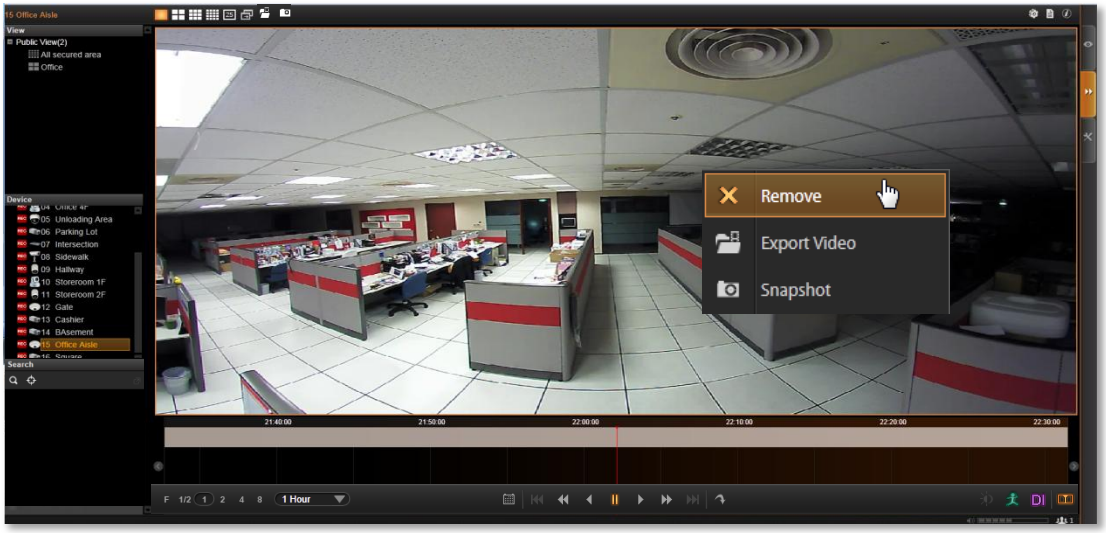
Remove Unwanted Channels

You will only need the desired channels to be kept in **Display** area, as you don't want too many unnecessary results after you perform a search.

To remove a channel from **Display** area, you may place your cursor over the channel, and right click the mouse, then right-click menu provides "**Remove**", "**Export Video**" and "**Snapshot**" for a single channel.

Note

The view of a map channel will not be record, and therefore it has no time bar or recordings for playback.



To remove all channels at one time, on title bar, click to bring up the most used playback-related commands menu, and select "**Remove All**".

Search on Time Bar

You may focus on a certain channel as a search base. Its time bar will be highlighted as well.

1. To adjust the time frame seen on the **Time Bar**, you can click on any location on the **Time Bar** and use the scroll wheel on your mouse:
   - Scroll upwards to view a narrower time frame (For ex: Change the time frame from 1 hour to 30 minutes)
   - Scroll downwards to view a broader time frame (For ex: Change the time frame from 1 hour to 2 hours)

   Note that if your mouse doesn't provide a scroll wheel, this function can also be achieved by adjusting the "**Time Bar Scale"** in the **Playback Control Bar**.
2. To find specific later time spot, drag the cursor to the left.
3. To find specific former time spot, drag the cursor to the right.
4. Click on to previous time section; to next time section.

Display Event Types

By default, the "**Manual**" recording will display in orange, while "**Schedule**" recording displays in grey on the time bar. To highlight specific events, you may enable the "**Event**" and "**DI**" event highlighters on **Playback Control Bar**.

Event Type Highlight Colors

Playback Controls

The playback related controls reside in **Playback Control Bar**. You may adjust the video play speed, do a reverse / forward play, or pause the video to spot your desired view. For non-continuous recording types such as **DI**, or **Event** recording, you may use the "**Previous Recording**" or "**Next Recording**" buttons to jump to the part directly.

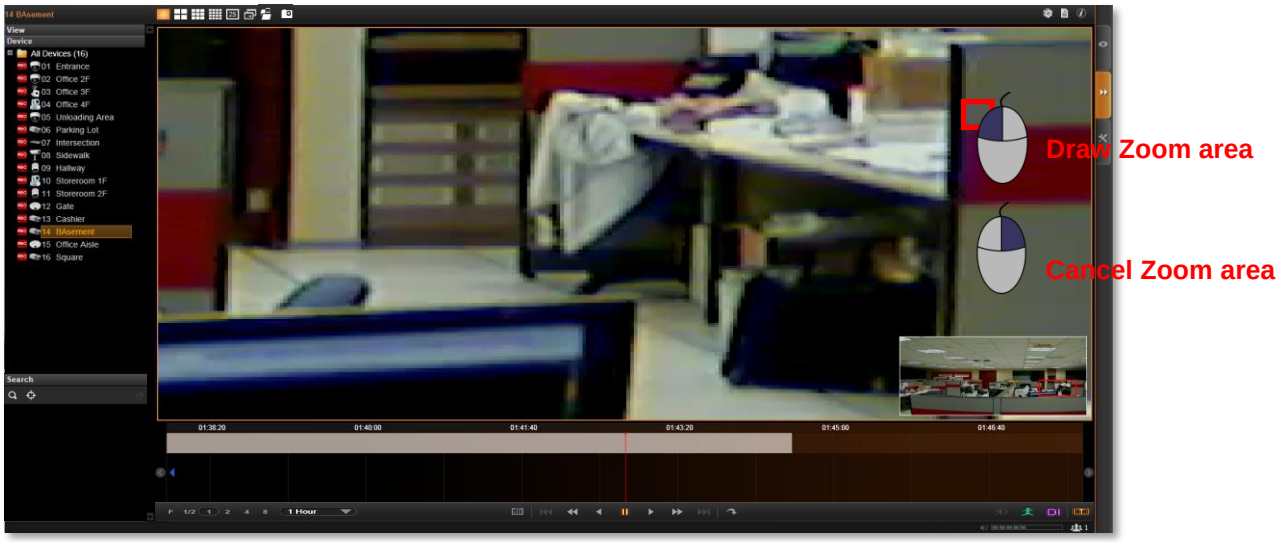
Daylight Saving Time Switch

NVR Server will detect and display your client computer local time on **Live View** and **Playback** screen**.** Once you apply **Daylight Saving Time** rule on your computer, NVR server will automatically enable this function on **Control Bar**. By default, this function will be enabled automatically as daylight saving time begins. You may disable this function to view playback according to **Coordinated Universal Time**.

Digital Zoom on Channel View

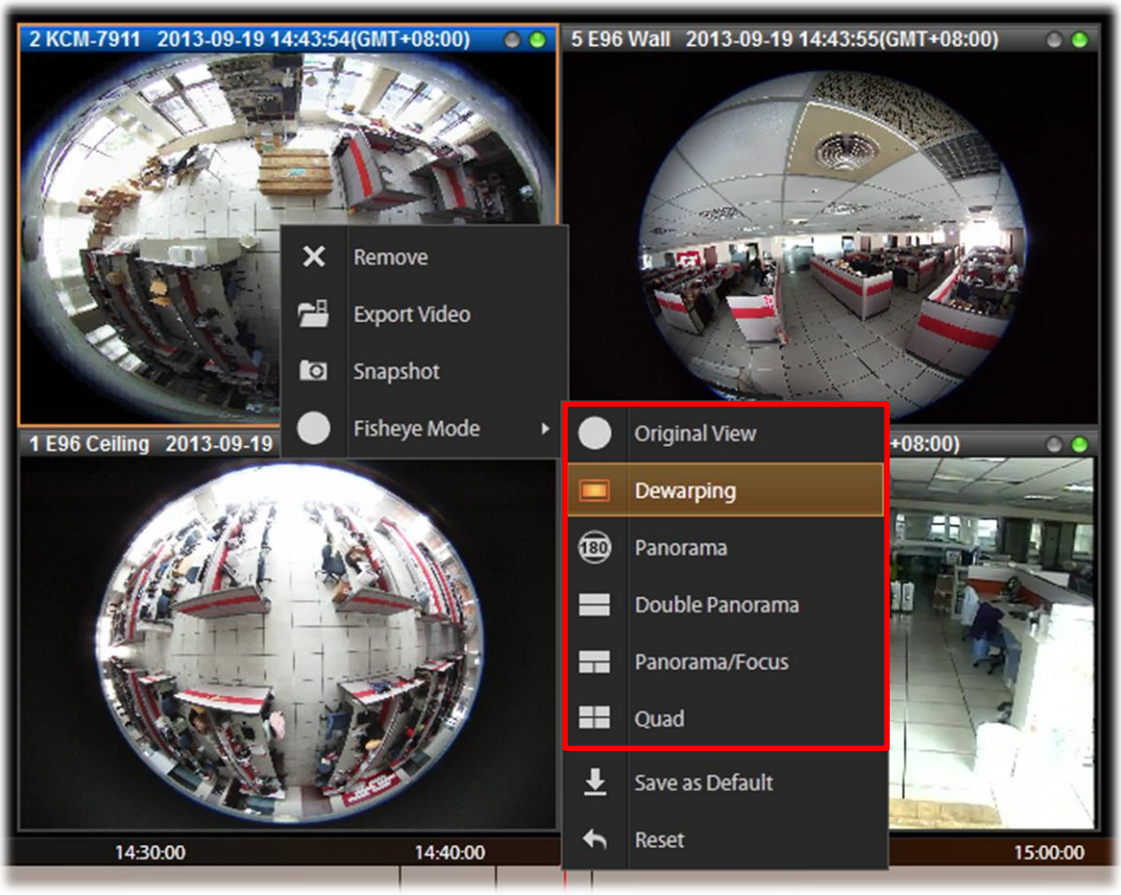
Regardless of the camera models, you may perform digital zooming while the video is playing.

1. Click and drag a highlight rectangle over any channel, and the area highlighted will be displayed in the full live video window. In this mode, a picture-in-picture view will show in the lower right of live view window. A red rectangle will mark the currently enlarged view area within the full size video. You may click and drag the red rectangle to see another area.
2. To go back to the original full video view, just right-click on the minimized Picture-in-Picture view.



Explore Fisheye View

You may change to the desired fisheye view mode on Playback screen. Select a fisheye camera channel, right-click to bring up the channel menu→ **Fisheye Mode** → select one view mode.

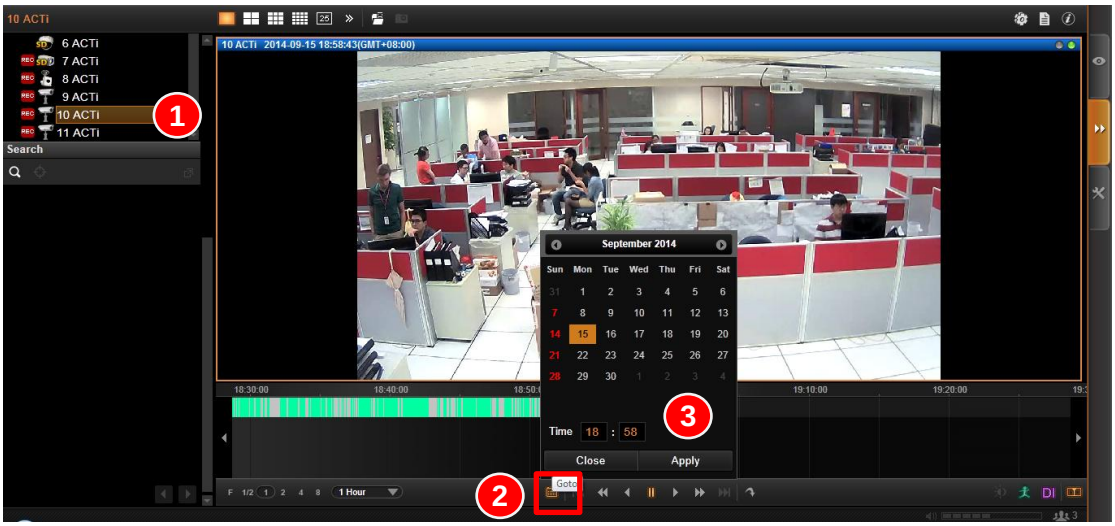


In a view mode where ePTZ operation is available (e.g. **Quad** mode), you may explore the region of interest using mouse or **PTZ Panel** at will. For ePTZ operation instructions, please refer to Navigate a Fisheye Camera Channel on page 38.

Search by Time

If you simply want to skim through the footage record around a certain time, you can start by locating the specific time on the time bar.

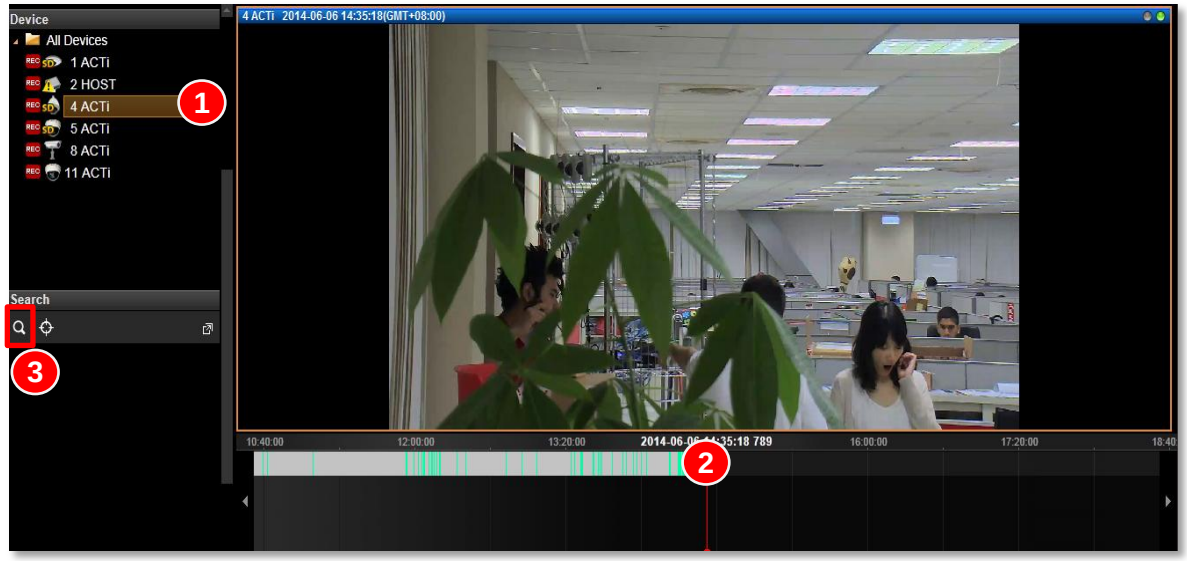
1. Double-click on your desired channel or drag it to the display window. The channel view will appear in the window.
2. On **Playback Control Bar**, click , and specify the target date and time on the calendar window, and then click "**Apply**".
3. The time bar will immediately locate the target time.



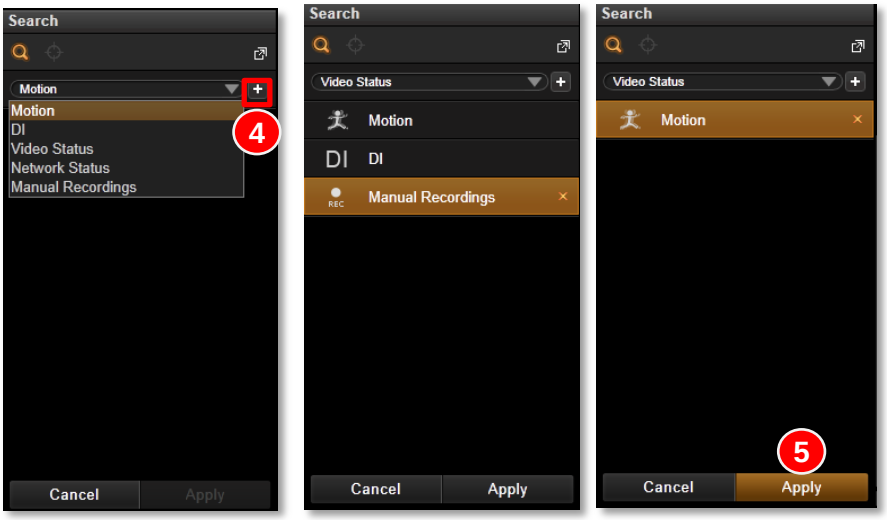
Search by Event Type

If you are clear about (1) When (2) as which event type (3) Where the incident happened, you will not need to drag on time bar all the way to the spot. The event search tool can sort out the video clips that match your criteria.

1. Double-click on your desired channel or drag it to the display window. The channel view will appear in the window.
2. Drag time bar to the target time.
3. On **Search Tool** panel, two search tools will appear, click



4. Select an event type from dropdown list, and click "**+**" to create this filter. You can select an unwanted filter and delete it by clicking on the "**x**" on the right.
5. Select the desired filter and click "**Apply**" to start searching.



Search by Video Analytics

NVR server is equipped with two useful video analytics that can perform advanced search – **Motion** and **Tamper**.

Motion

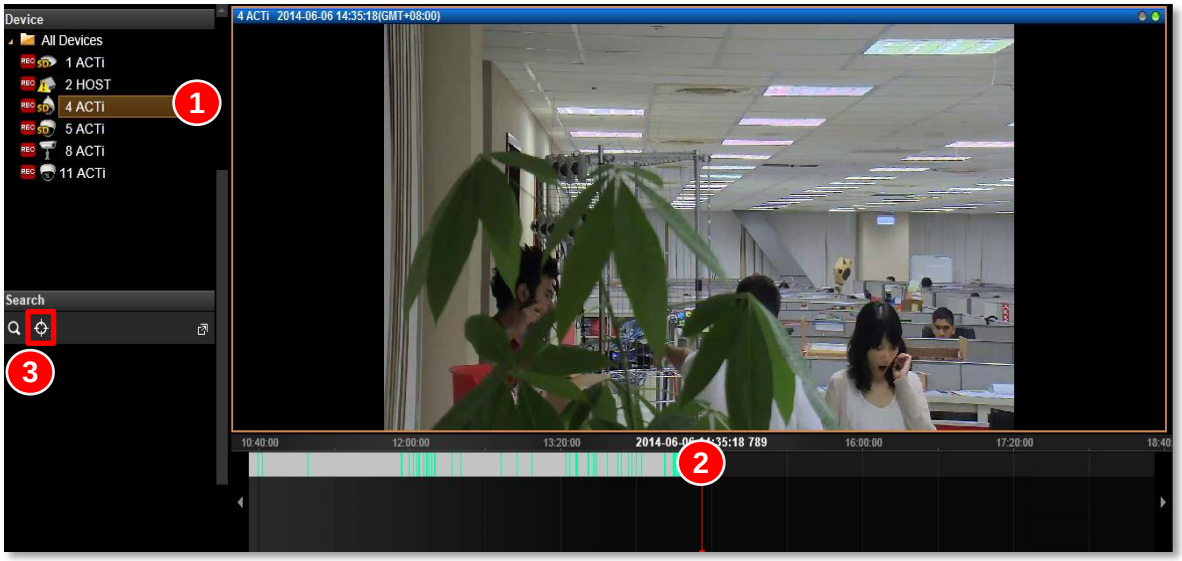
- Unlike the typical motion detection method, this motion video analytics algorithm can detect a maximum of six regions in a view, including rectangle regions and polygon regions.

Tamper

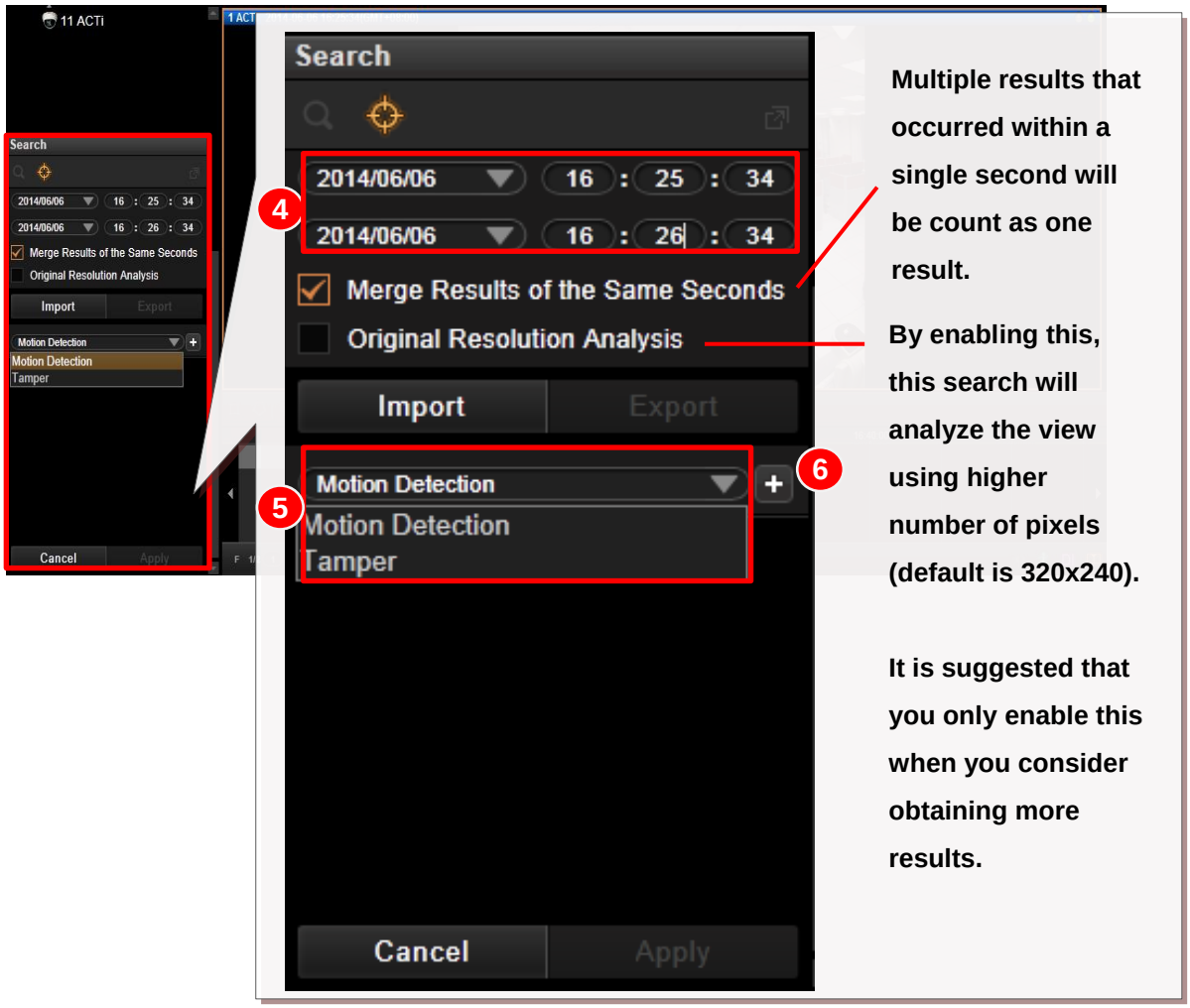
- A camera that has been tampered with is not able to serve its purpose. To avoid this, NVR offers an algorithm to detect whether any form of tampering has been done to a camera, whether it be in the form of redirecting the angle of the camera, de-focusing the camera, covering, or spray-painting the camera.

To start,

1. Double-click on your desired channel or drag it to the display window. The channel view will appear in the window.
2. Drag time bar to the target time.
3. On **Search Tool** panel, two search tools will appear, click

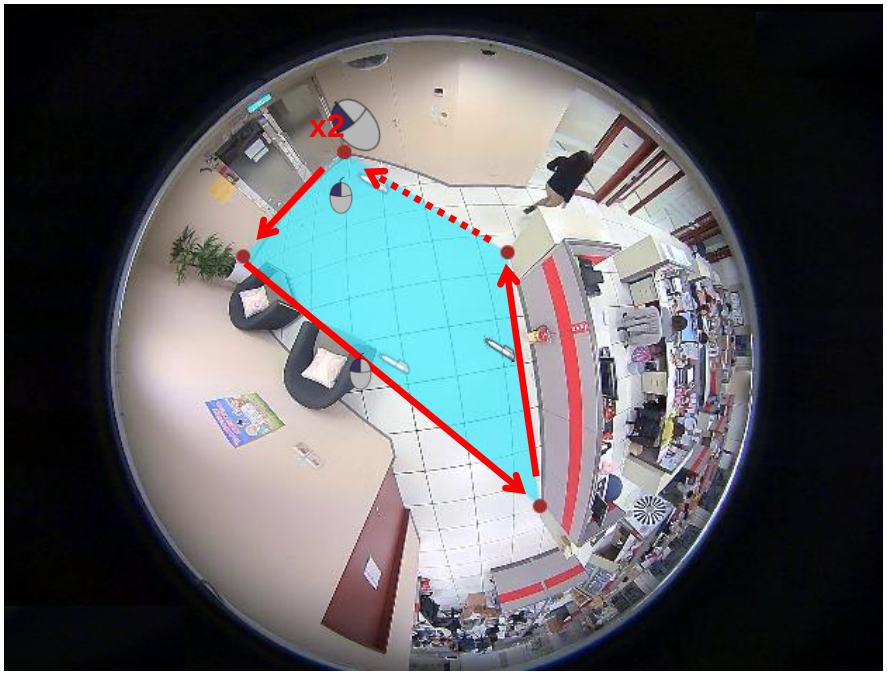


4. Define the time range.
5. Select the video analytics type
6. Click "**+**" to create this filter. You can select an unwanted filter and delete it by clicking on the "**x**" on the right.



7. After this filter is created, draw the regions on the channel view. (You can define a total of six regions for a motion filter, while tamper filter will us the whole camera view for analyzing)

If the area you want to mark does not fit to the form of a rectangle, you may also choose to draw a polygon by selecting the icon. To draw the lines for the sides of your polygon, click your cursor to mark the endpoints of each line. **Double-click** on the final endpoint of the final line to confirm and highlight the polygon in light blue, as shown in the illustration below. Make sure your lines connect (a minimum of three lines) to form a closed shape.



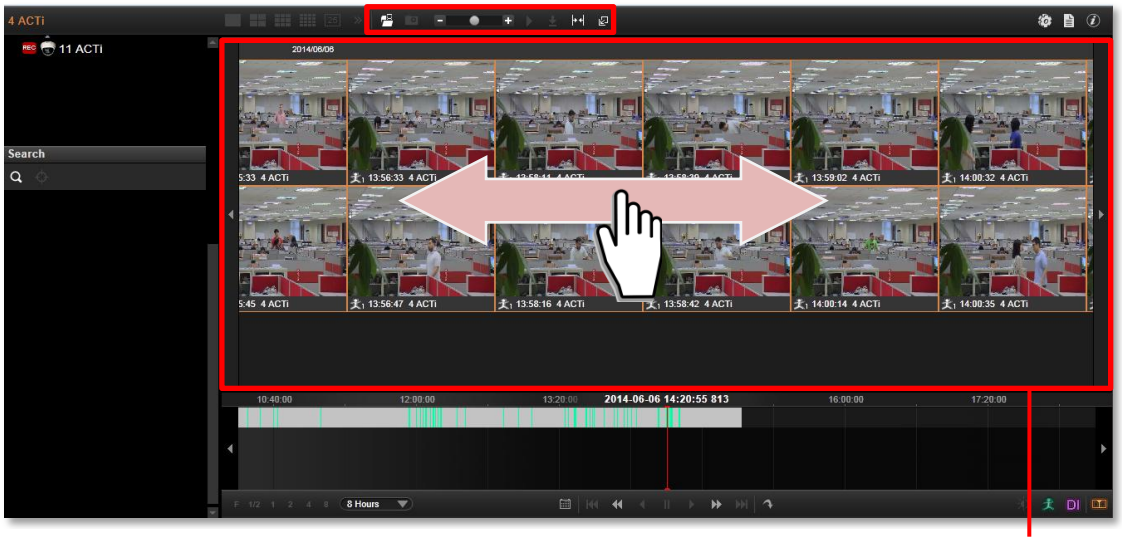
8. Click "**Apply**" to start searching.

To create a new search, simply double-click on a camera ion **Camera** list, and follow the steps narrated above again.

View Search Results

The search results will then start being generated in thumbnails in **Search Result Viewer** window. However, it might take a few seconds if a large number of results are found. The thumbnails are listed in sequential order, left-to-right and top-to-bottom. You can drag on the **Search Result Viewer** to your desired time to find the snapshots of the incidents.

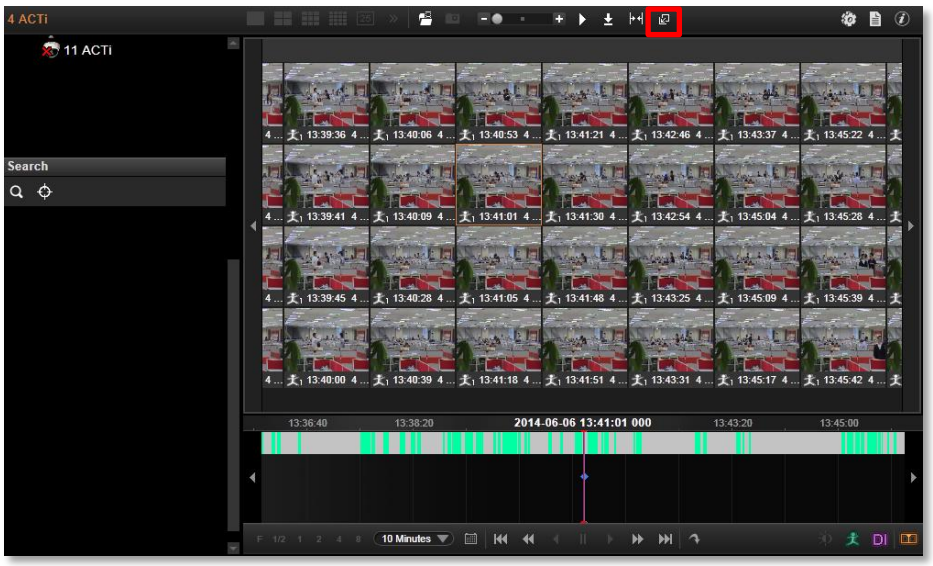
Search Result Tool Bar



Search Result Viewer

For easy exploring the search results, on **Search Result Tool Bar**, you can

- Adjust the size of the snapshots, the smaller the thumbnail's size is, the more results you can see in the view.
- Select a thumbnail and click to download its snapshop.
- Select a thumbnail and click to directly start playing this event.
- Select a thumbnail and click to view the event card list instead of thumbnail view.

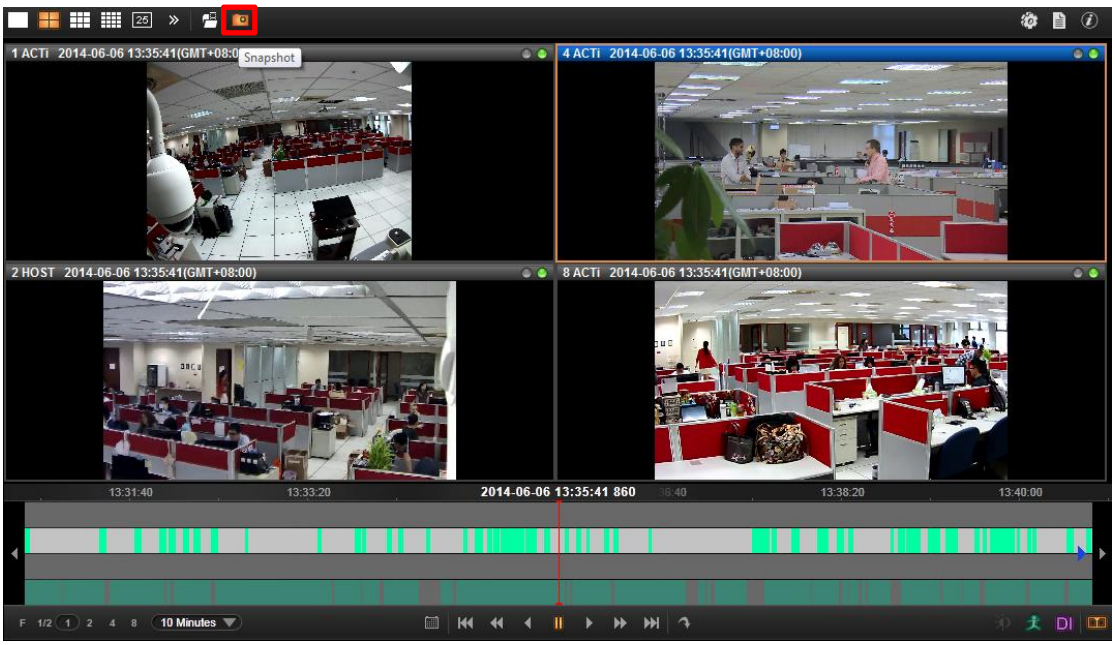


The event card list will be displayed in the **Search Tool** panel. You can click to browse throuth the event list, or duoblie-click on an event card to start playing this event.

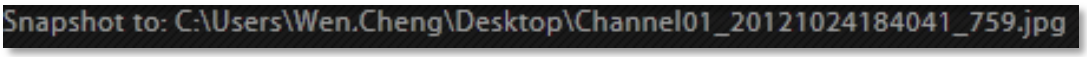
To return to thumbnail view, click .

Take a Snapshot of the Playback View

You may take a snapshot of a channel live image on **Live view** screen.



The snapshot will be saved to default folder on your client computer as .jpg format (The system default location is **Windows Desktop**). You may find the location path on the bottom of NVR window after taking a snapshot.



Export the Recordings

NVR playback offers two choices of video format for the exported video. The ***.raw** file, as the original video file format captured from video source, is able to be played on **ACTi Archive Player**. You may download the this utility from http://www.acti.com/downloadcenter

The***.AVI** file, as The most widely adopted video format on Windows system, can be instantly transferred by NVR server and played directly in **Windows Media Player**.

Before starting to export the video, please make sure there is enough memory space on the hard drive of your destination computer.

To play the exported *.AVI file in other video players, you must have FFDShow or DivX codec installed in your computer. They can be found over the internet at the following sites:

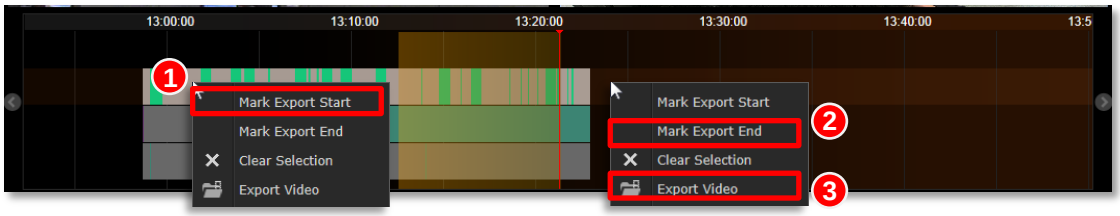
http://sourceforge.net/projects/ffdshow/

http://www.divx.com/en/software/divx

Define the Section of Exported Video on Time Bar

You may define the video duration on time bar during the playback. In this way, you don't spend extra time and effort on finding the specific date and time information.

1. On time bar, drag to the start point of the video, right-click to bring up quick menu, then select "**Mark Export Start**".
2. If you have successfully set the start point, the time duration will turn yellow as you drag to another point. Drag to the end, right-click to bring up quick menu, and then select "**Mark Export End**".



3. As both start point and end are set, you may right-click again the quick menu and find these two options are already gray out. Select "**Export Video**"

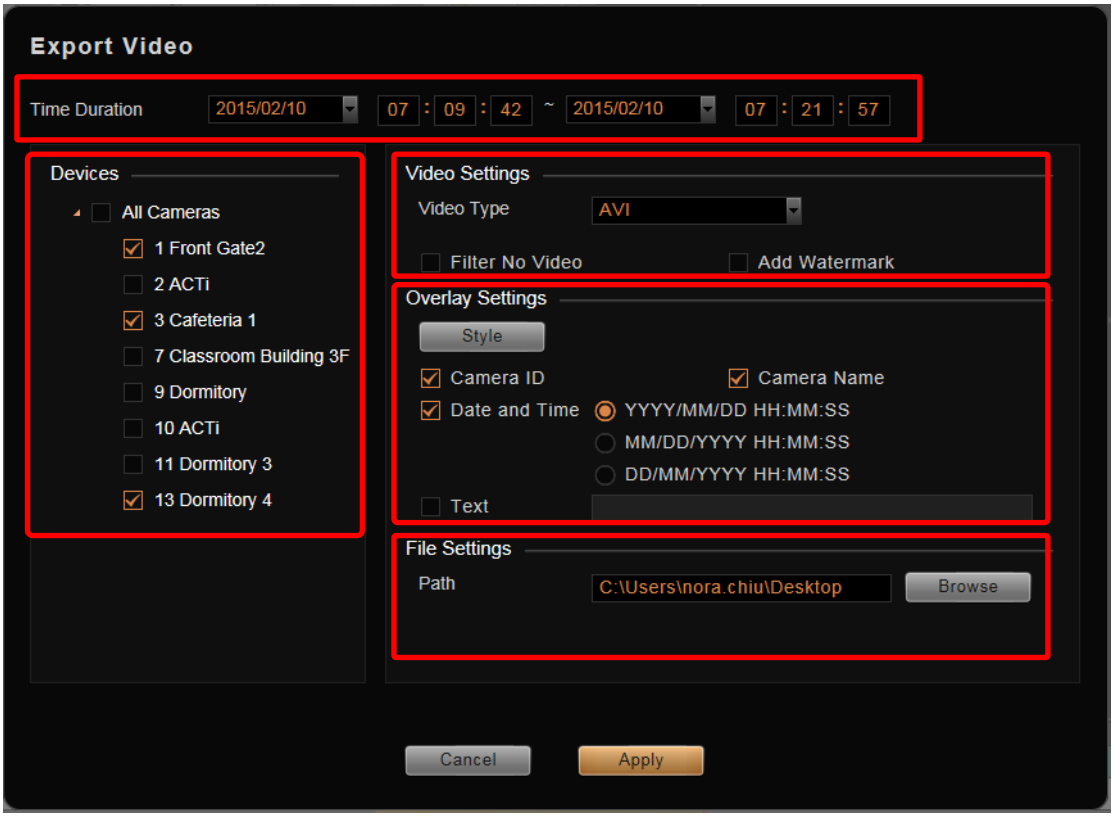
Depending on your scenario, you may first set the ending point, then the start point.

Note

Other than defining the time duration, on time bar, you can rest the time cursor on a desire time and then click to enter **Export Video** window. The default time duration will be one minute before this time spot plus one minute after it, at a total length of two minutes.

Set the Export Video Settings

You may export video with or without defining the time duration beforehand since you can configure all the settings on **Export Video** window. On **Search Result Tool** bar, click to enter the window.



1. Select the cameras. If more than one camera are selected, you will get multiple recordings.
2. Set the time duration. The minimum duration is **10** seconds, maximum is **1 hour**. (For individual recording, if the total **size** is over **2 GB, or the video encoder type**, **frame rate, resolution** of this channel's stream once altered during the selected **Time Duration**, this file will be **divided**).
3. For **Video Settings**, you can (1) choose the video format,(2) enable the "**Filter no video**" function to skip the video gaps, (3) enable "**Add Watermark**" to embed a unique code in every frame of this exported video footage, (4) if this channel is a fisheye camera, make sure you select the desired fisheye view from right-click menu → "**Fisheye Mode**", and check "**Export current fisheye view**" here. The exported video will be displayed in the view mode you are seeing now; otherwise, the default fisheye view for exported video is **Original View**.
4. Set the overlay text if needed. The maximum number of characters for Text is **40**.
5. This exported video can be saved to your current client computer. Please choose the location. By default, the files will be saved to Desktop.

6. Click "**Apply**" to start file converting and exporting. The export process window will appear. In the **Camera** column displays the processed/ total number of video clips of that camera. You may also observe the remaining processing time of each camera's video files.

There are five types of process status: **success**, **converting**, **waiting**, **no data** and **fail**

It might happen that there is certain section in a recording that exists no video data; if the status shows "**Fail**", it may be that your disk drive does not have enough space for video files, please make some space and click again to re-execute this task.

Note

Once a channel is changed to any of the following fisheye modes: **Dewarping**, **Panorama**, **Double Panorama**, **Panorama/Focus** or **Quad**, the resolution of this live stream will become 1920x1080, so will the resolution of exported video clip.

Note

Certain fisheye camera view modes (e.g. **Quad** mode) display multiple regions in a single channel. When being exported, these regions will still be put together as a single video file.